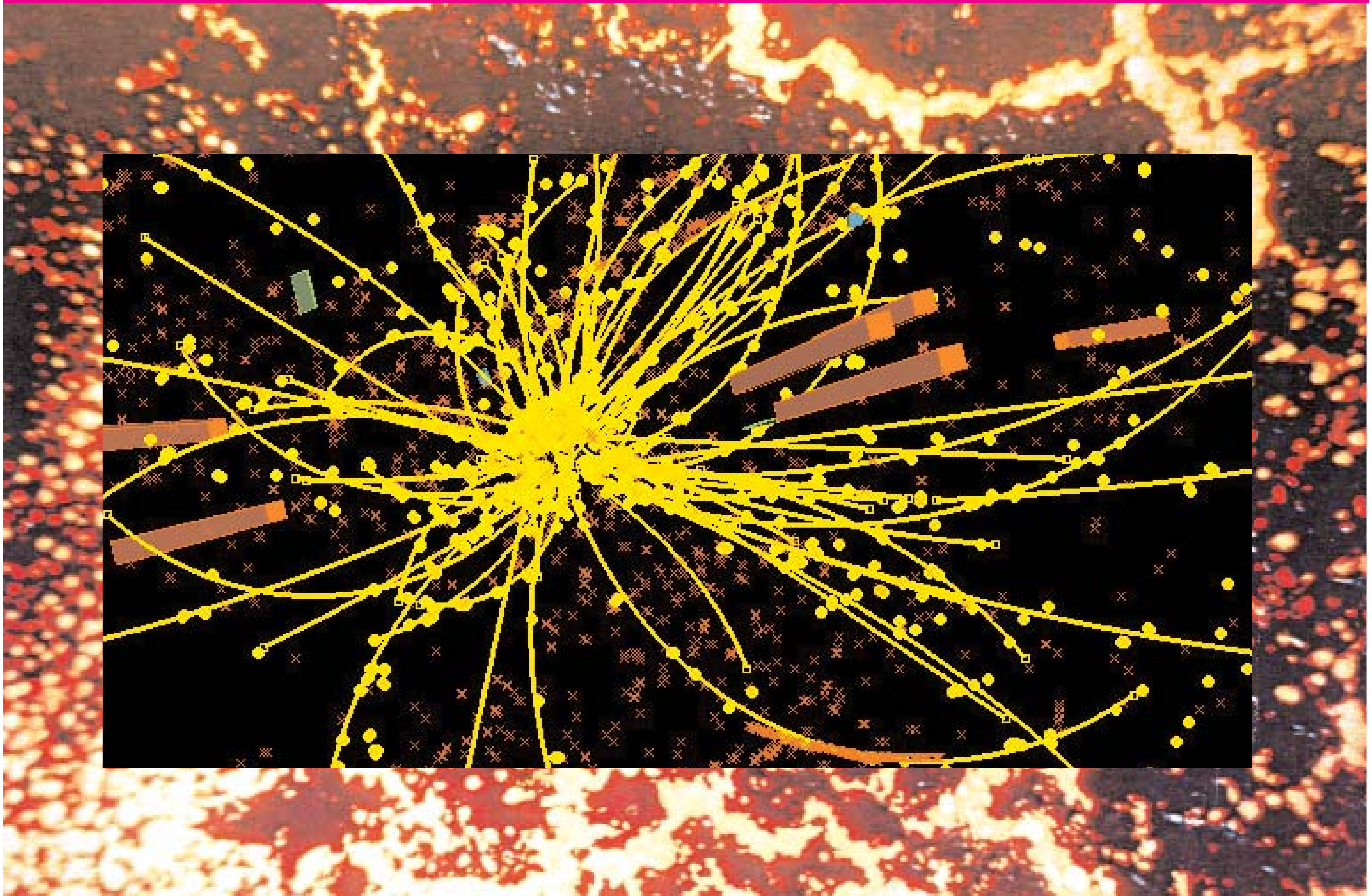
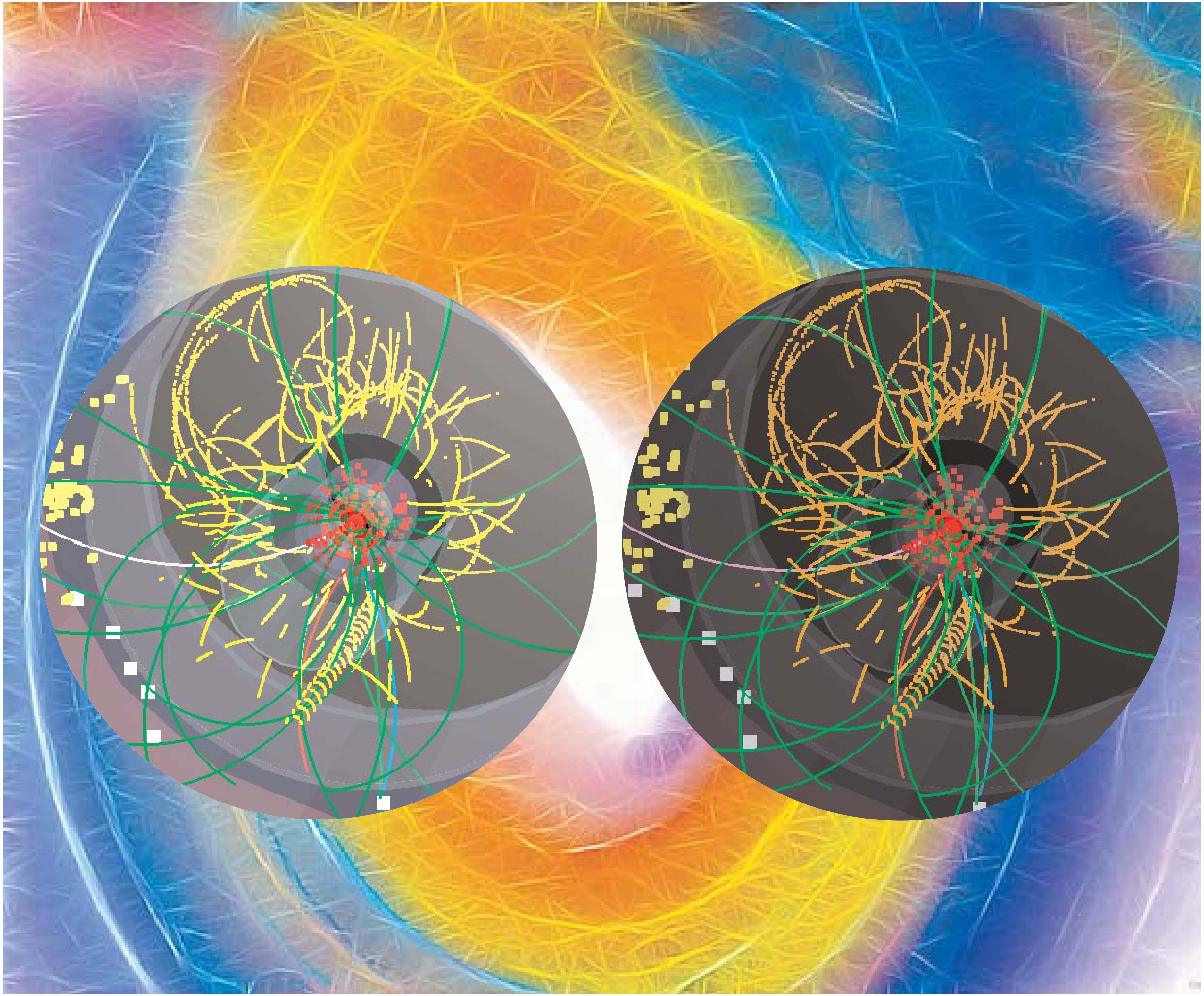
10^{43} second after the Big Bang



a poetic view

CLAUDE PAQUET

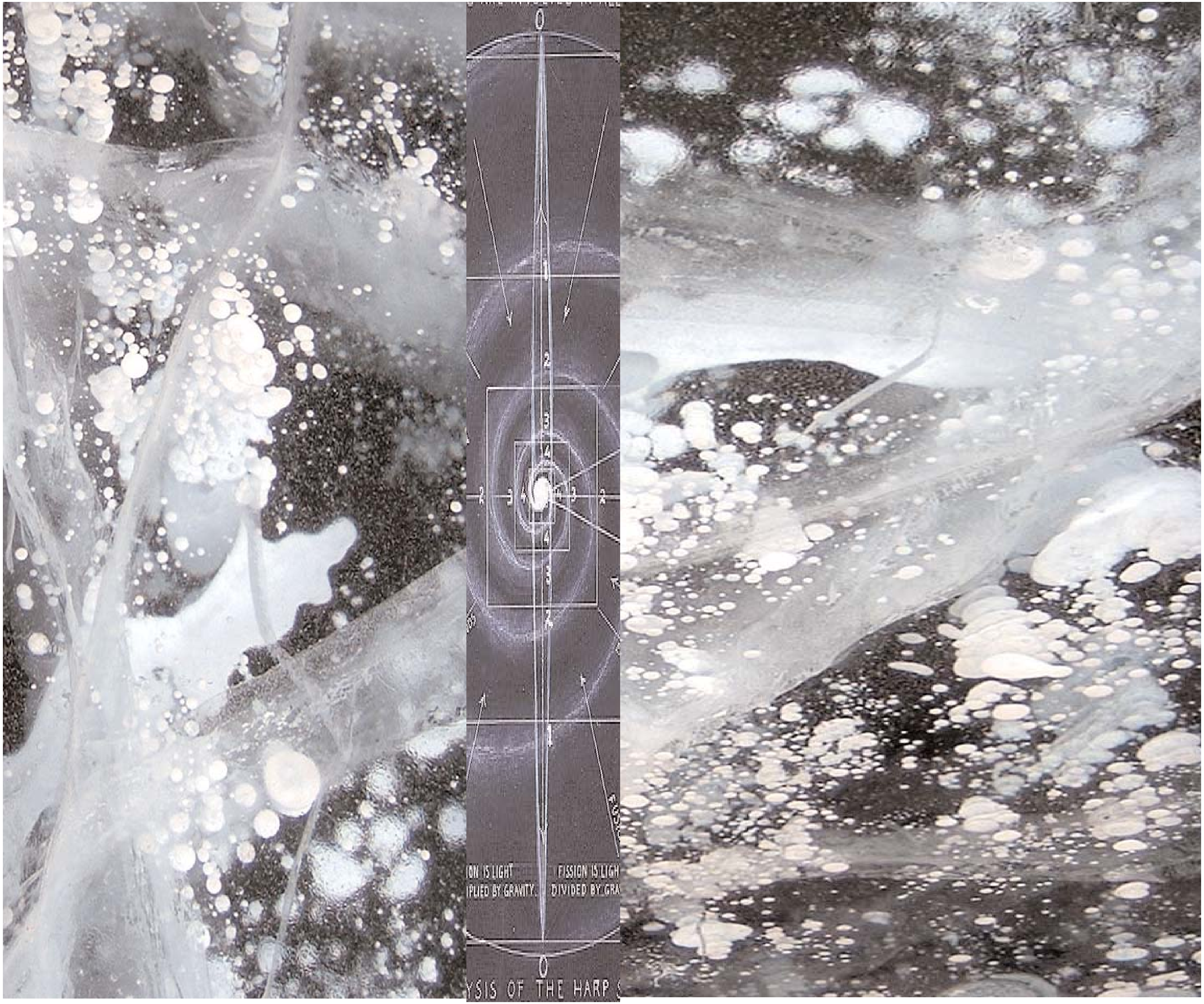


$$n + \nu_e \leftrightarrow p + e^-$$
$$n + e^+ \leftrightarrow p + \nu_e$$
$$n \leftrightarrow p + e^- + \overline{\nu_e}$$

$$\frac{n_p}{n_n} = e^{-\frac{E_p - E_n}{kT}} = e^{-\frac{\Delta m c^2}{kT}}$$

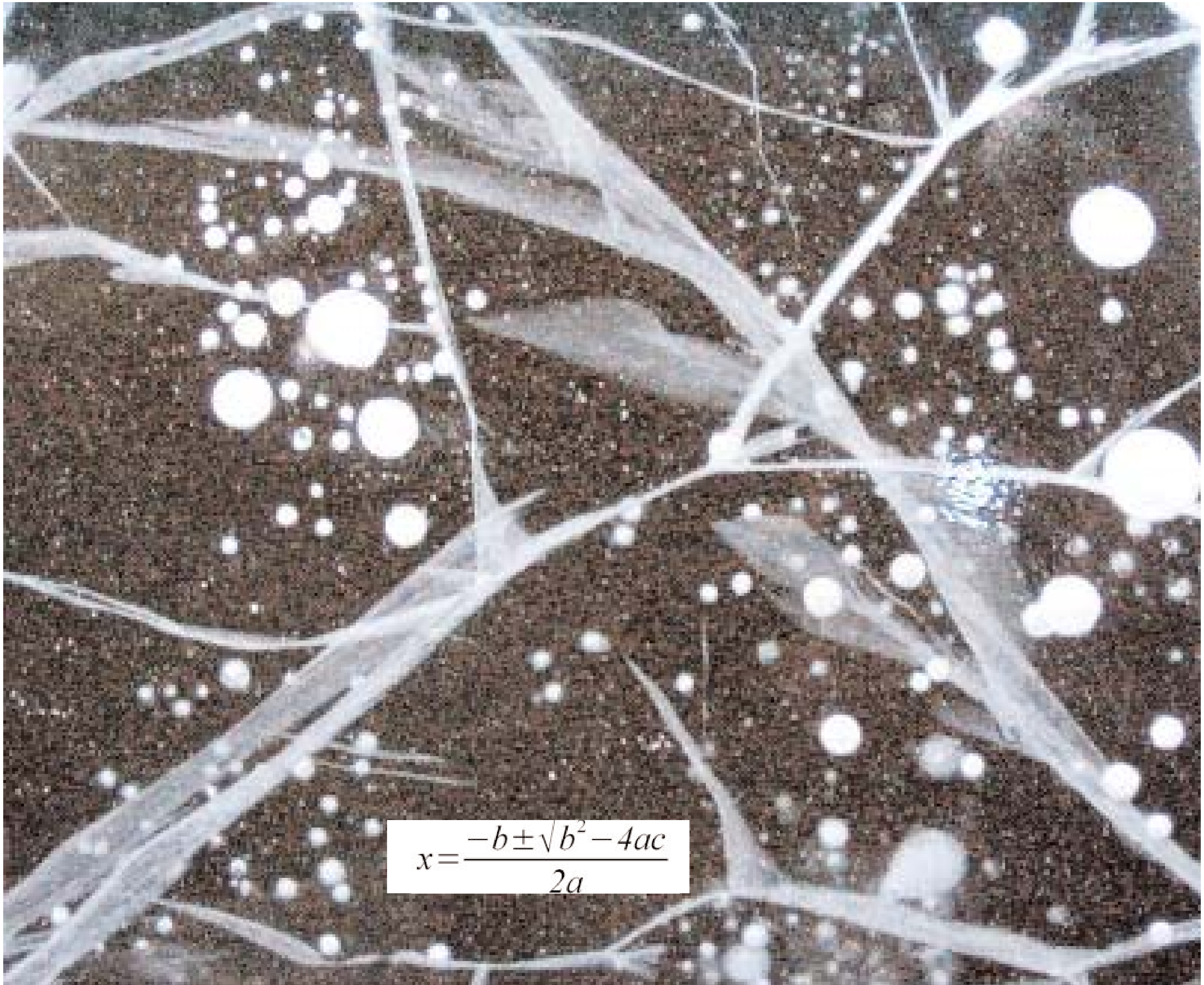
p + n - D + γ (γ : photon)
D + n - ^{3}H + γ
D + p - ^{3}He + γ
D + D - ^{3}H + p
D + D - ^{3}He + n
D + D - ^{4}He + γ
^{3}H + p - ^{4}He + γ
^{3}He + n - ^{3}H + p
^{3}He + n - ^{4}He + γ
^{3}H + D - ^{4}He + n
^{3}He + D - ^{4}He + p
^{3}He + ^{3}He - ^{4}He + 2p
^{4}He + D - ^{6}Li + γ
^{4}He + ^{3}H - ^{7}Li + γ
^{4}He + ^{3}He - ^{7}Be + γ
^{6}Li + n - ^{7}Li + γ
^{6}Li + p - ^{7}Be + γ
^{7}Li + p - ^{4}He + γ
^{7}Be + n - ^{7}Li + p
^{7}Be + e^{-} - ^{7}Li + γ

$$\iiint dP(\vec{r},t) \;=\; \iiint |\Psi(\vec{r},t)|^2 \;\, dV \;=\; 1$$

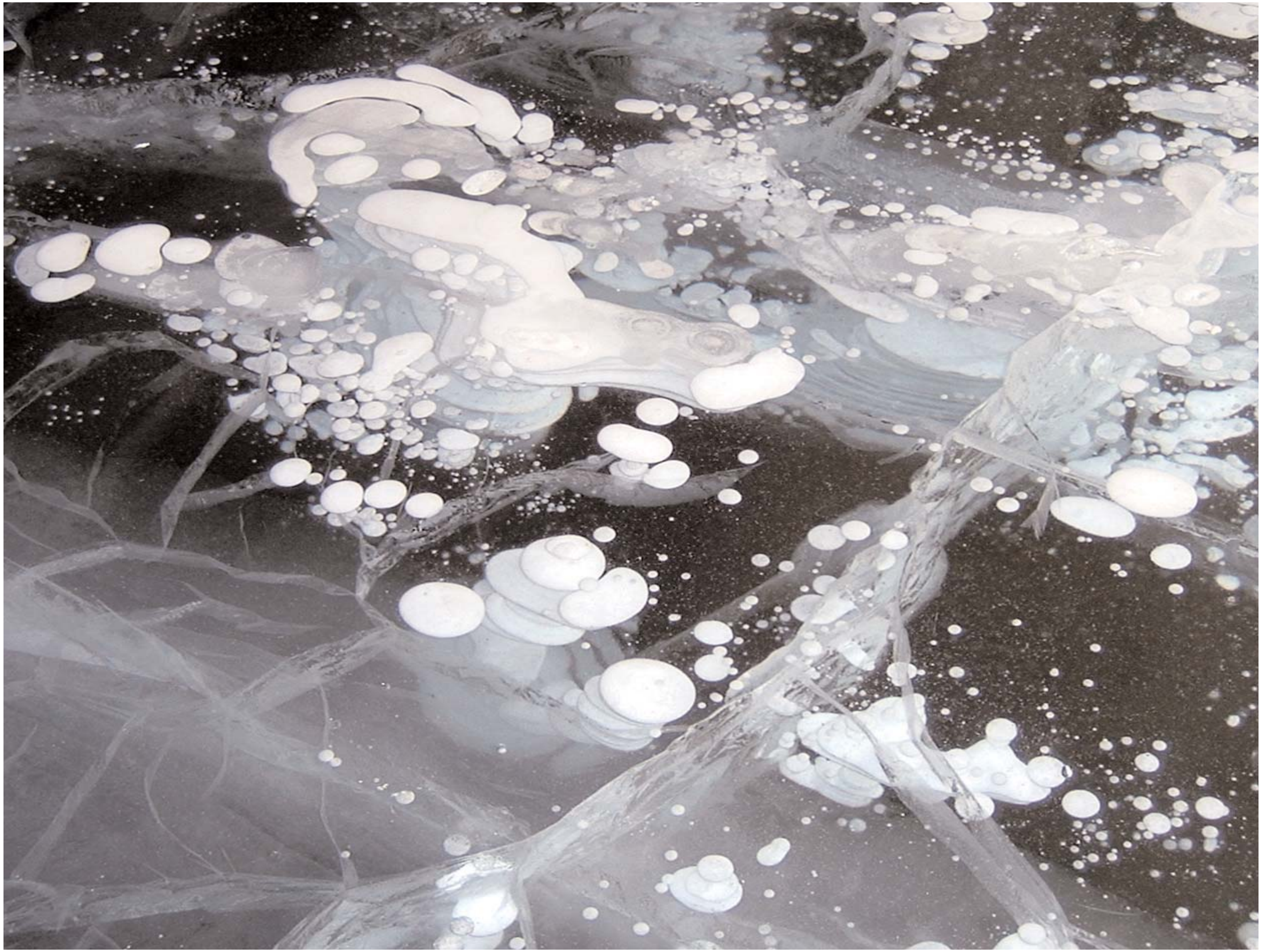


ION IS LIGHT
IPLIED BY GRAVITY.
FISSION IS LIGH
DIVIDED BY GRA
YSIS OF THE HARP

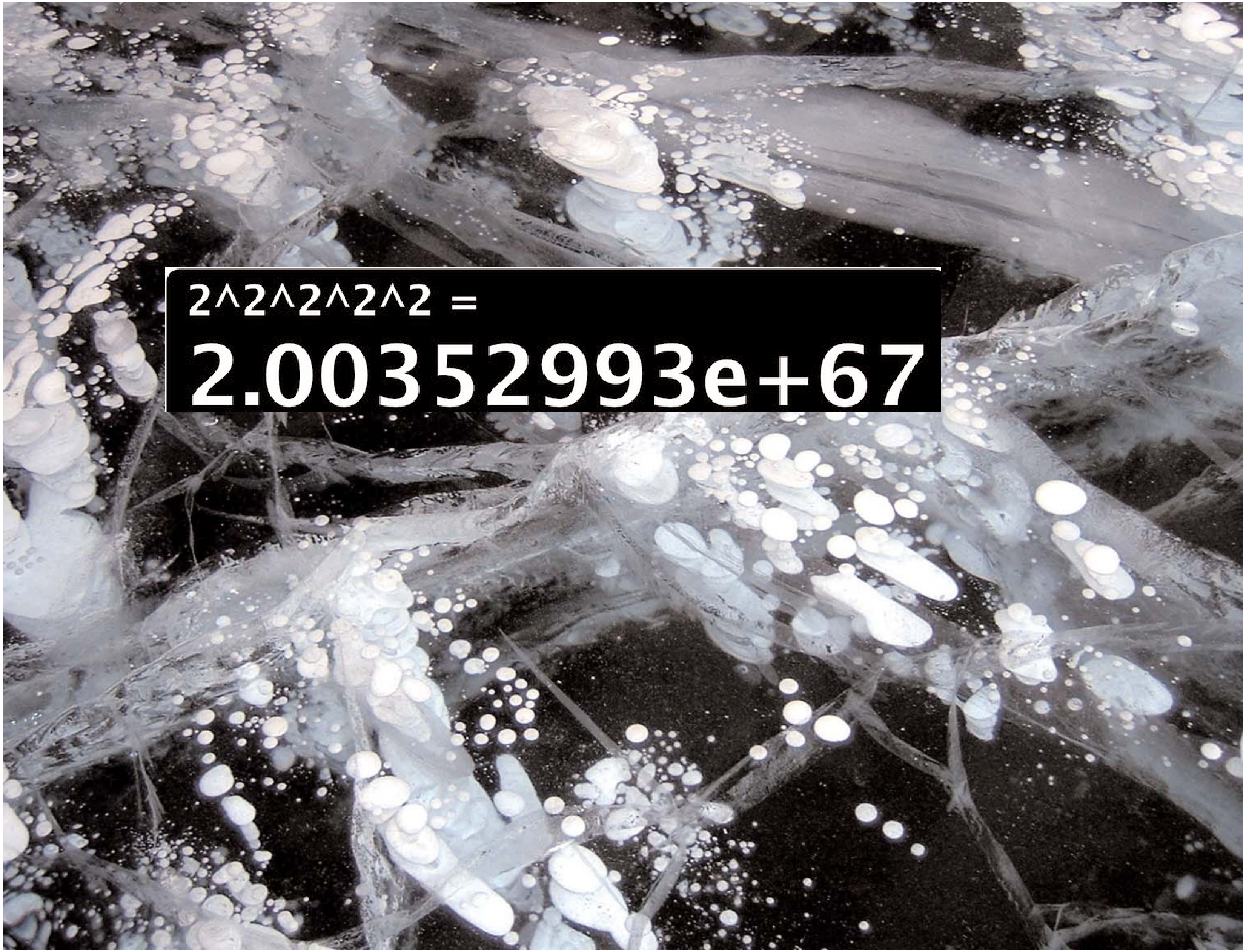
Position vs Time
Horizontal direction
1) x = x₀ + v₀t + ½at²
2) v = v₀ + at
3) v² = v₀² + 2a(x - x₀)
1) y = y₀ + v₀t + ½gt²
2) v = v₀ - gt
3) v² = v₀² - 2g(y - y₀)
g = 9.8m/
Negative vectors have the same magnitude but are 180° apart (opposite directions)
C = A + B
c = the hypotenuse
sin(θ) = a/c = opposite/hypotenuse
cos(θ) = b/c = adjacent/hypotenuse
tan(θ) = a/b = opposite/adjacent = sin(θ)/cos(θ)
SOH CAH TOA
Rules of Projectile Motion
- The x- and y- directions of motion can be treated independently
- The x- direction is uniform motion aₓ = 0
- The y-direction is free fall a_y = -g
- The initial velocity can be broken down into its x- and y- components.
X- Direction aₓ = 0
x = v₀ₓt = distance along the x-axis (assuming x₀ = 0)

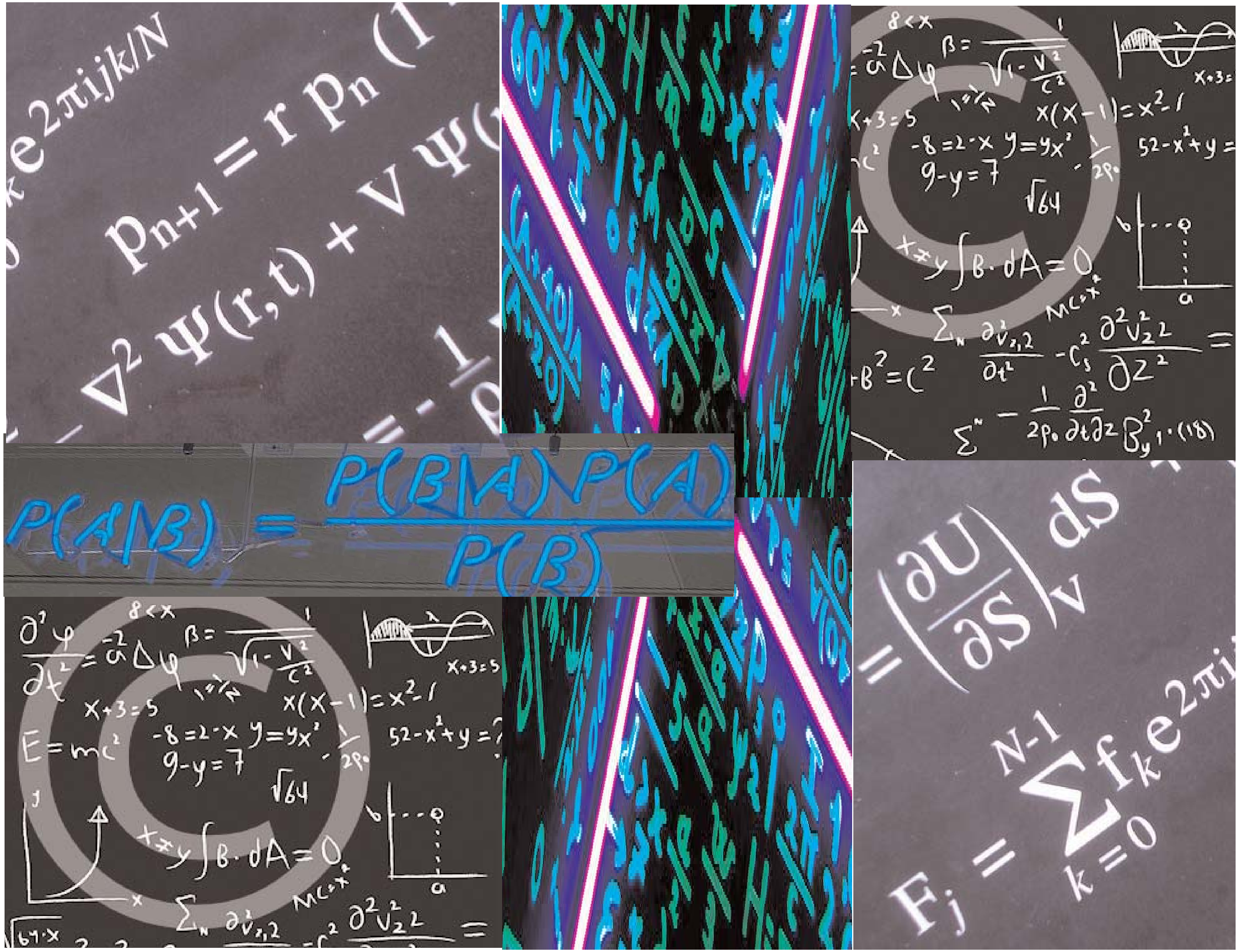


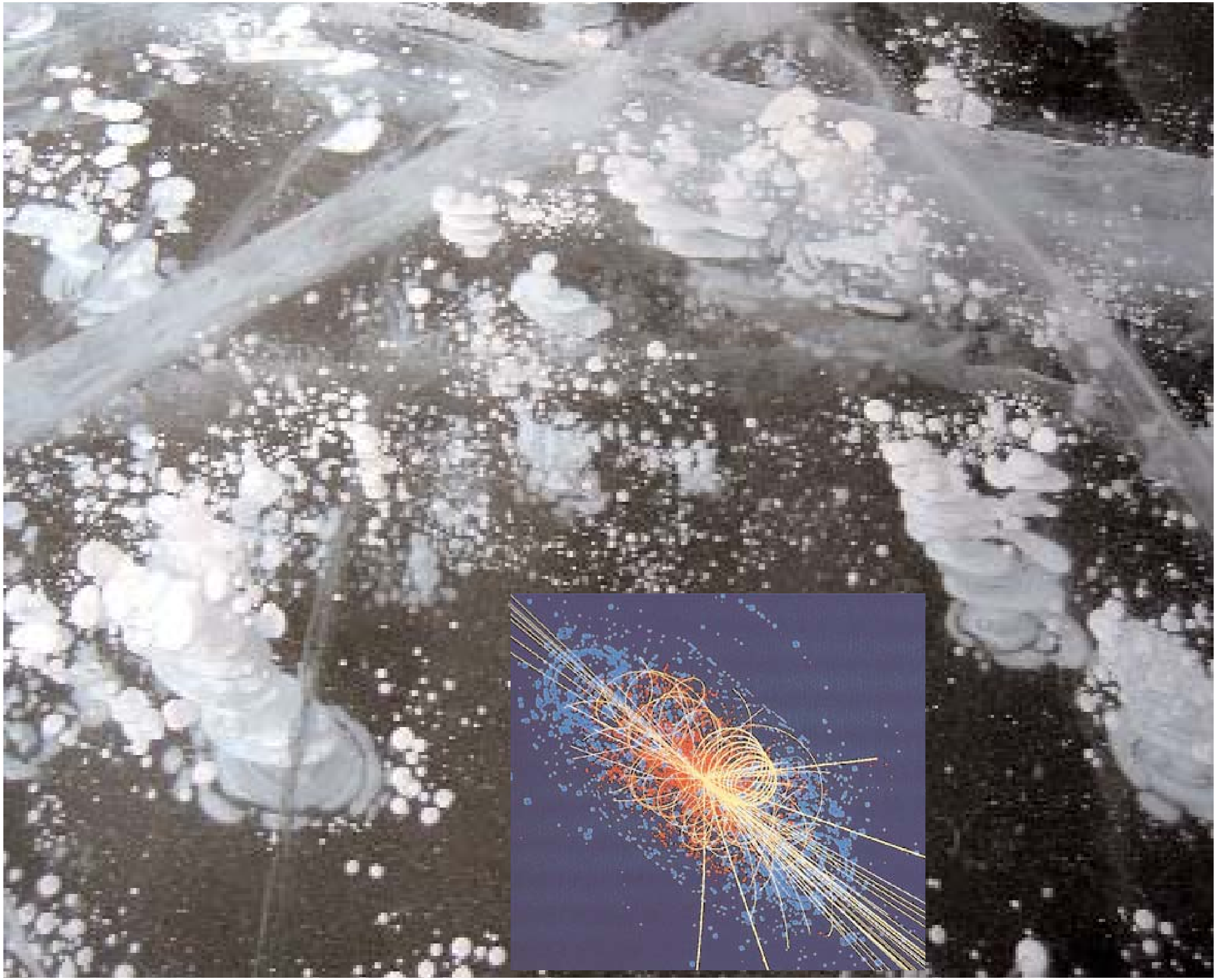
$$x=\frac{-b\pm\sqrt{b^2-4ac}}{2a}$$

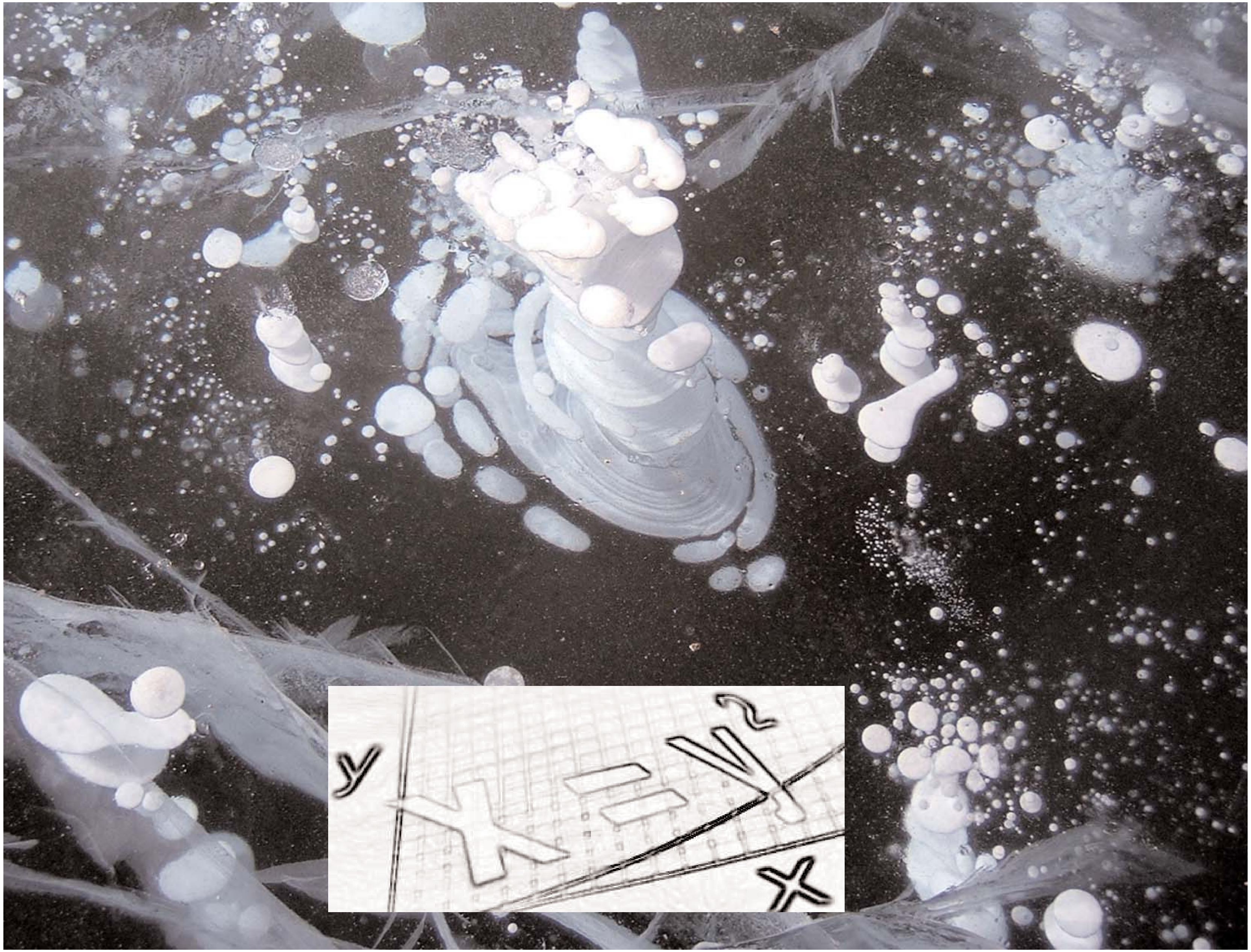


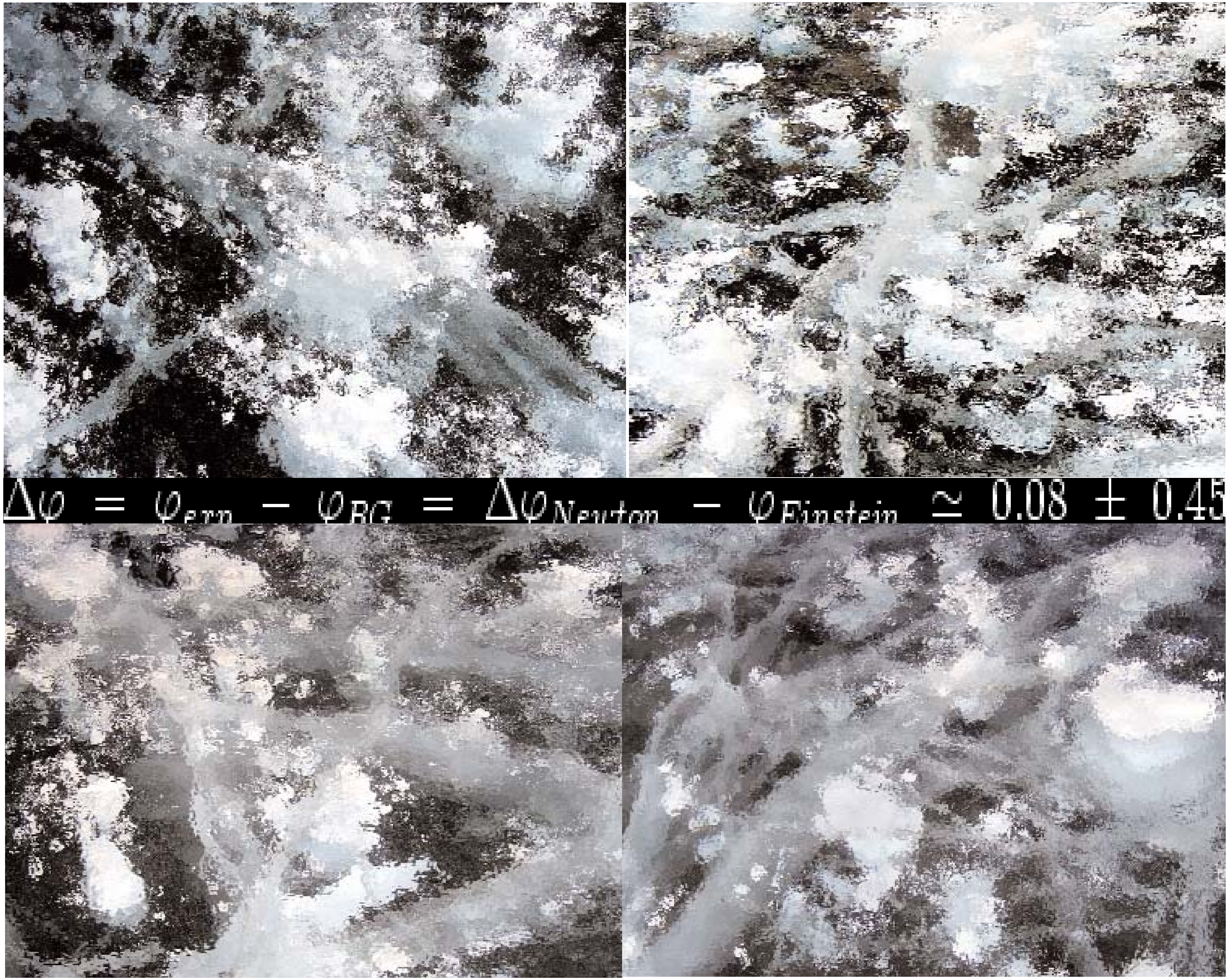
$$-\,\hbar^2\,\frac{\partial^2\Psi(\vec{r},t)}{\partial t^2} = -\,\hbar^2\,c^2\,\Delta\,\Psi(\vec{r},t) + m^2\,c^4\,\Psi(\vec{r},t)$$

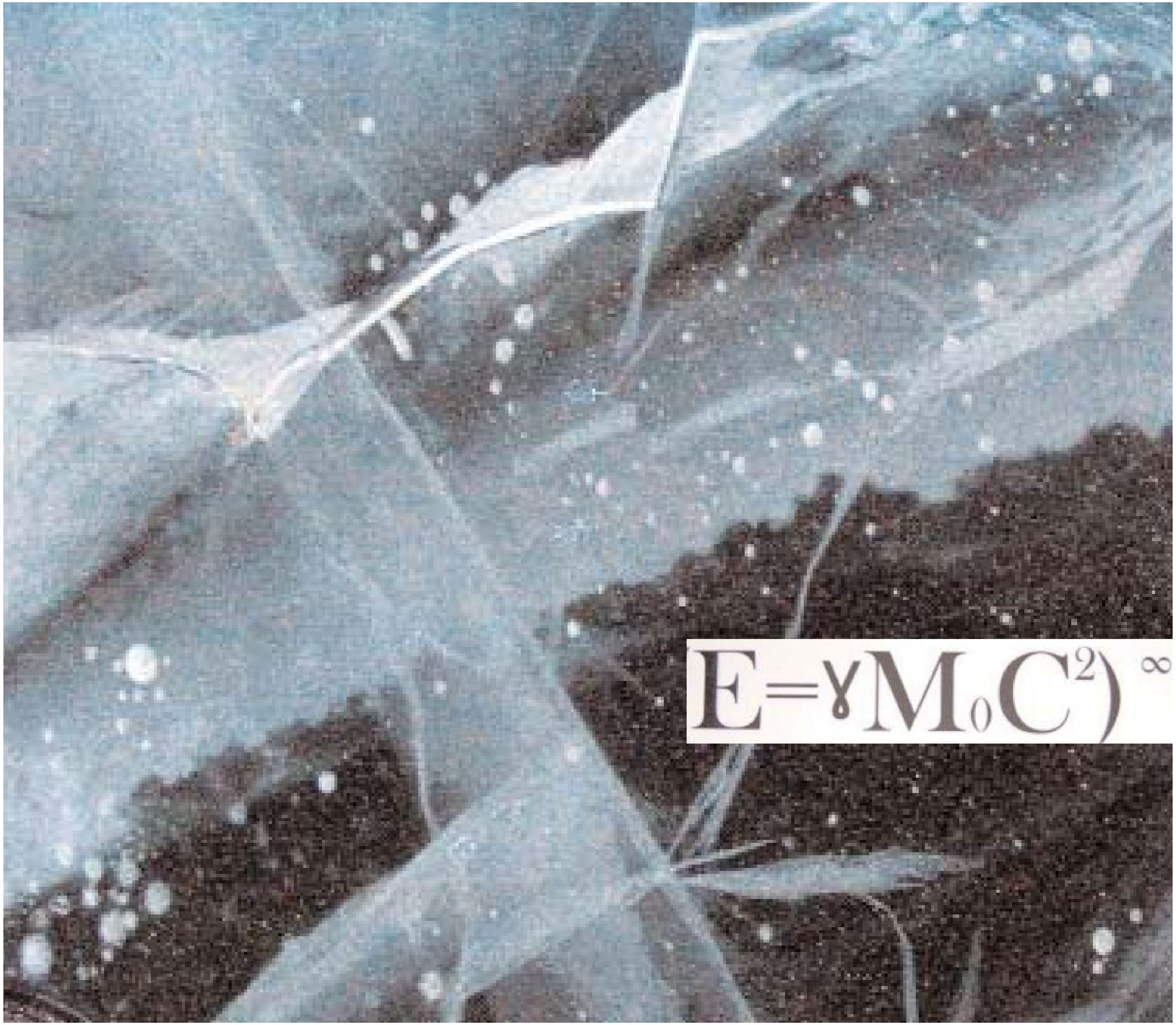

2^2^2^2^2 =
2.00352993e+67

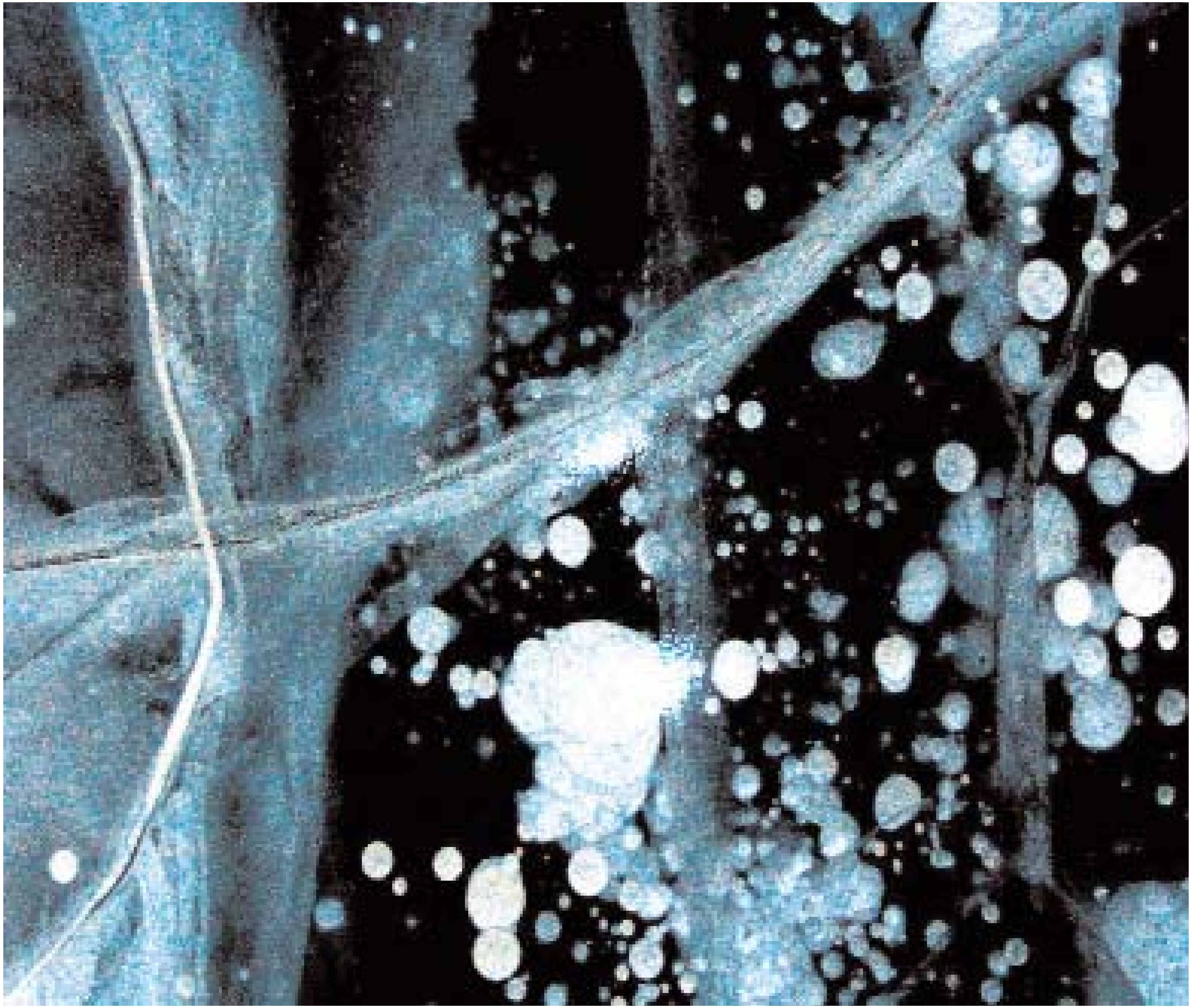

$P(A|B) = \frac{P(B|A)P(A)}{P(B)}$
$p_{n+1} = r\,p_n$
$F_j = \sum_{k=0}^{N-1} f_k e^{2\pi i}$
$E = mc^2$
$x+3=5$
$9-y=7$
$\sqrt{64}$




y
$x = y^2$
x


$\Delta\varphi = \varphi_{exp} - \varphi_{BG} = \Delta\varphi_{Newton} - \varphi_{Einstein} \simeq 0.08 \pm 0.45$


E=ɣM0C2) ∞



BRA

$$\langle\phi| = \begin{pmatrix}\phi_1\\ \phi_2\\ \vdots\\ \phi_N\end{pmatrix}_{\epsilon^*} = \begin{bmatrix}\phi_1 & \phi_2 & \cdots & \phi_N\end{bmatrix} \cdot \begin{bmatrix}\langle u_1|\\ \langle u_2|\\ \vdots\\ \langle u_N|\end{bmatrix}$$

KET

$$|\psi\rangle = \begin{pmatrix}\psi_1\\ \psi_2\\ \vdots\\ \psi_N\end{pmatrix}_{\epsilon} = \begin{bmatrix}\psi_1\\ \psi_2\\ \vdots\\ \psi_N\end{bmatrix} \cdot \begin{bmatrix}|u_1\rangle & |u_2\rangle & \cdots & |u_N\rangle\end{bmatrix}$$

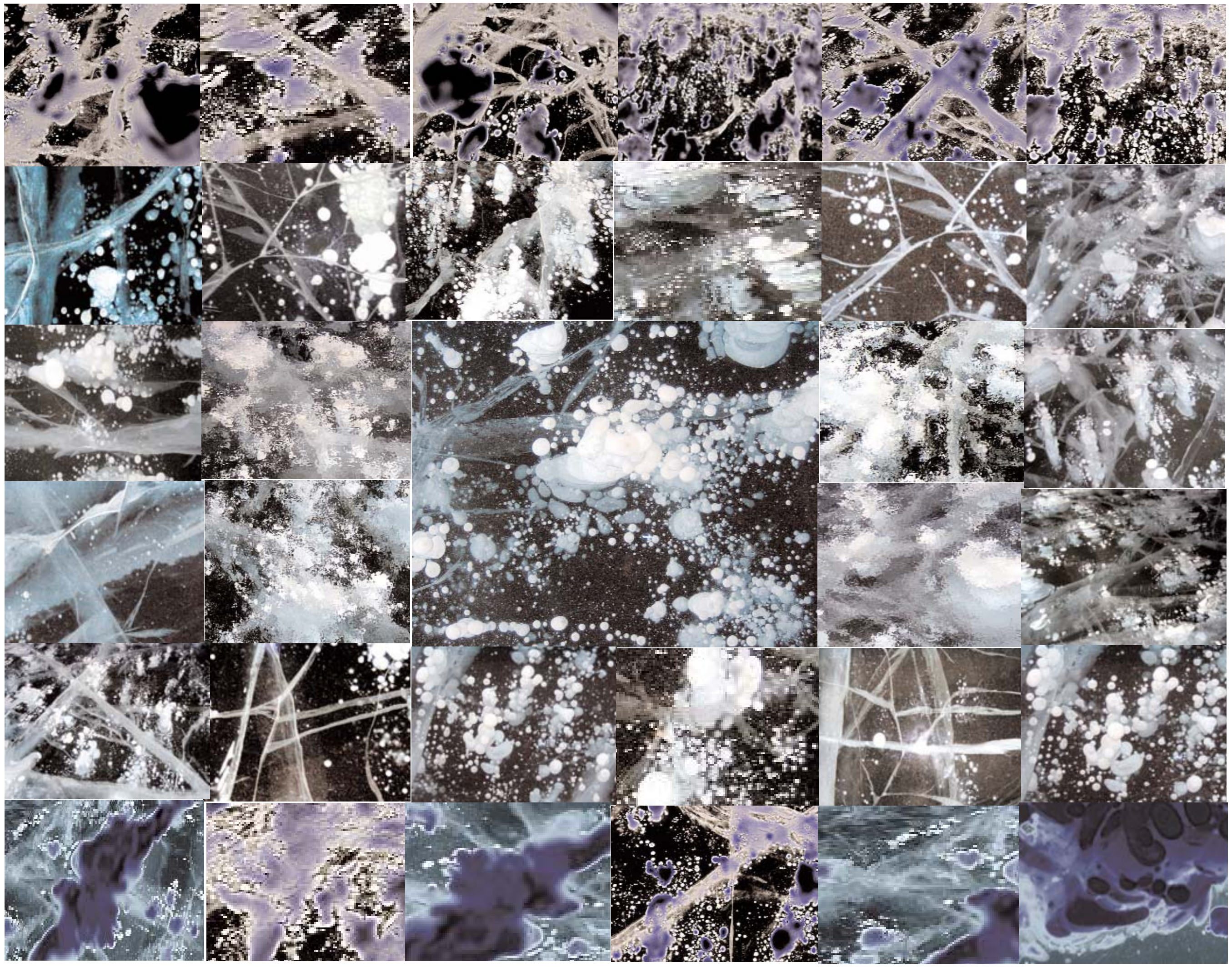
$$\dim(\epsilon) = \dim(\epsilon^*) = N,$$

$$\langle\phi| = \sum_{n=1}^{N} \phi_n \cdot \langle u_n|,$$

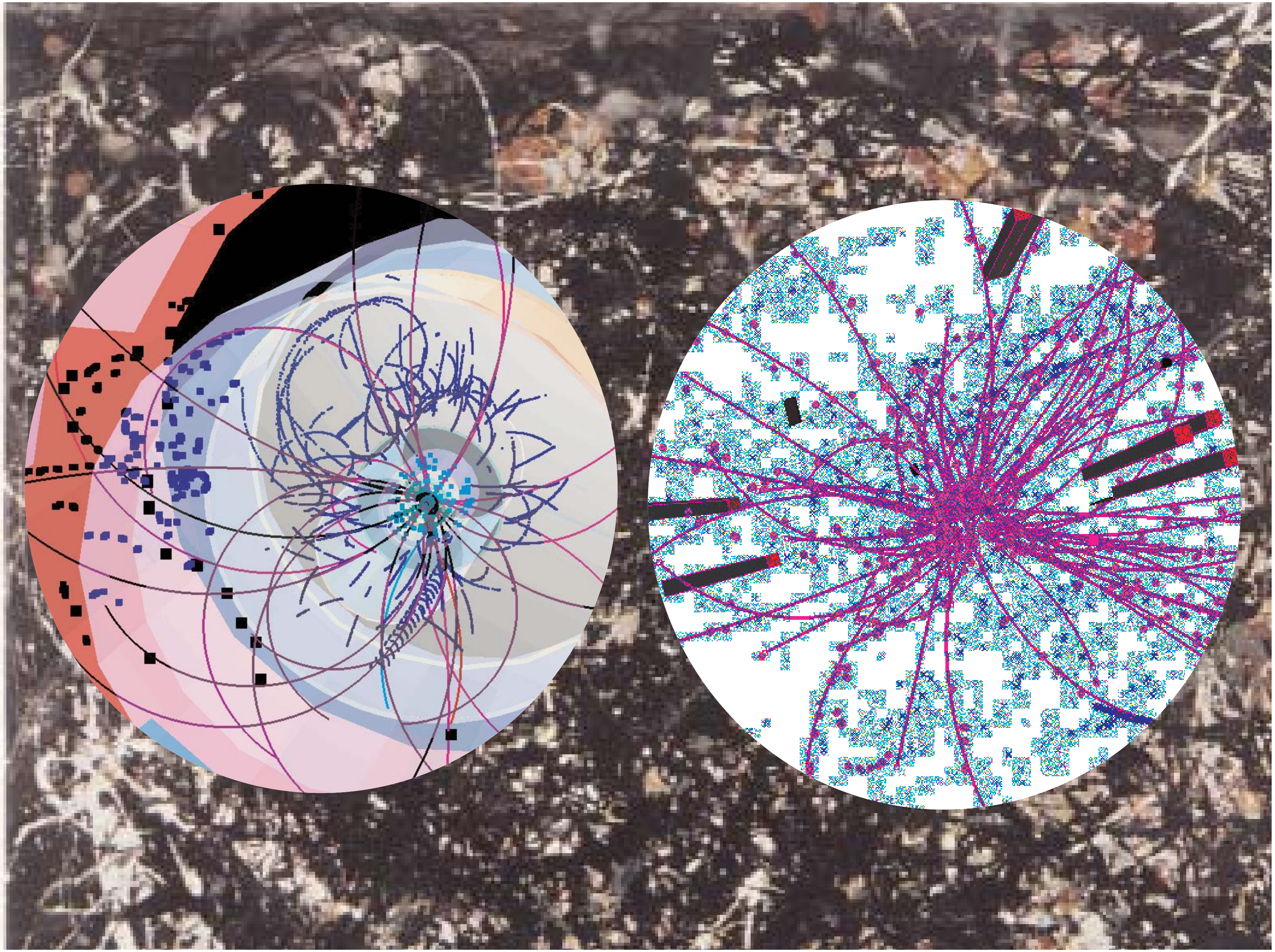
$$|\psi\rangle = \sum_{n=1}^{N} \psi_n \cdot |u_n\rangle.$$

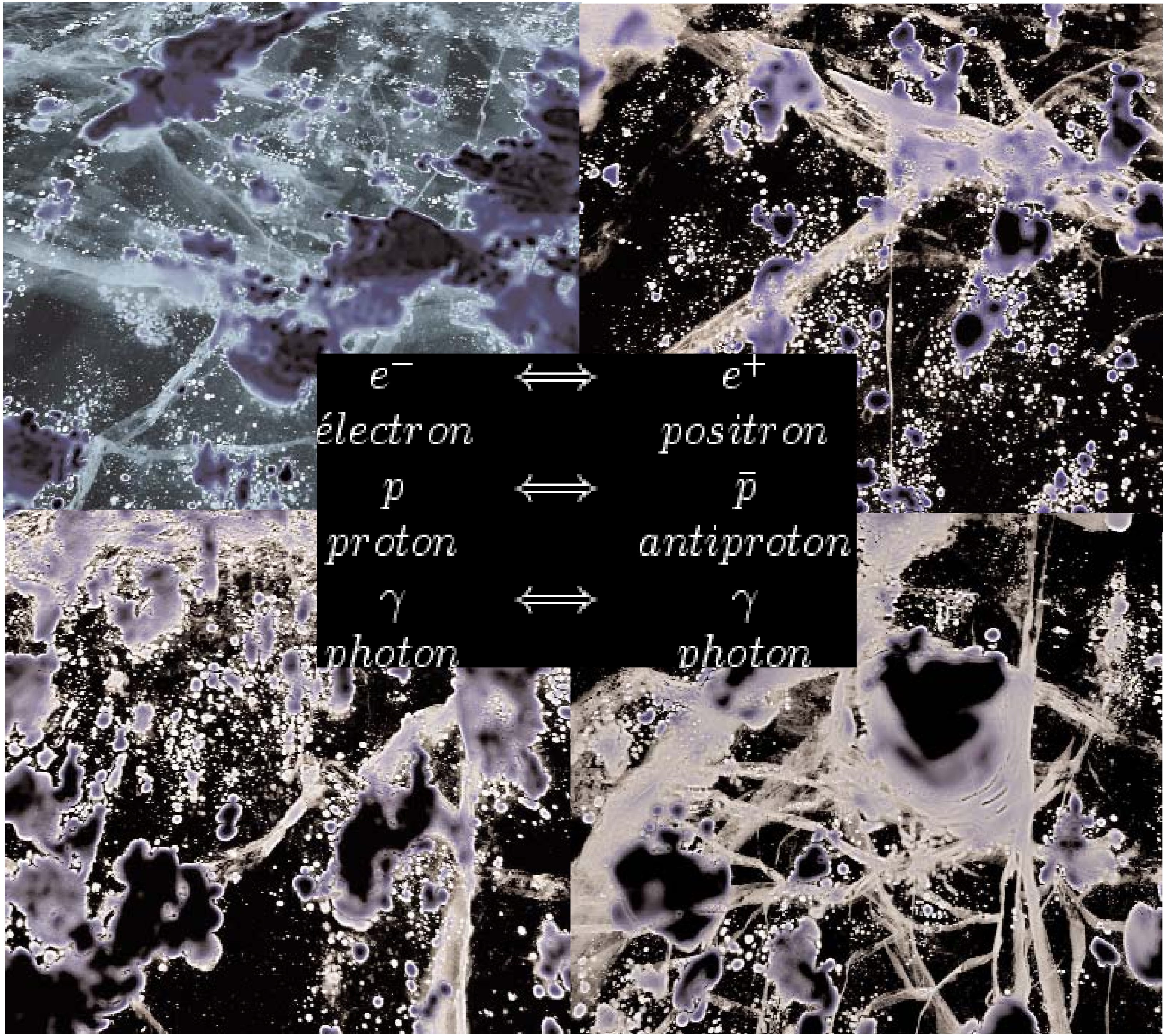
$$\langle\phi|\psi\rangle = \left(\begin{pmatrix}\phi_1\\ \phi_2\\ \vdots\\ \phi_N\end{pmatrix}_{\epsilon^*}, \begin{pmatrix}\psi_1\\ \psi_2\\ \vdots\\ \psi_N\end{pmatrix}_{\epsilon}\right) = \begin{bmatrix}\phi_1 & \phi_2 & \cdots & \phi_N\end{bmatrix} \cdot \begin{bmatrix}\psi_1\\ \psi_2\\ \vdots\\ \psi_N\end{bmatrix} = \sum_{n=1}^{N} \phi_n \cdot \psi_n$$

matière noire **dark matter**

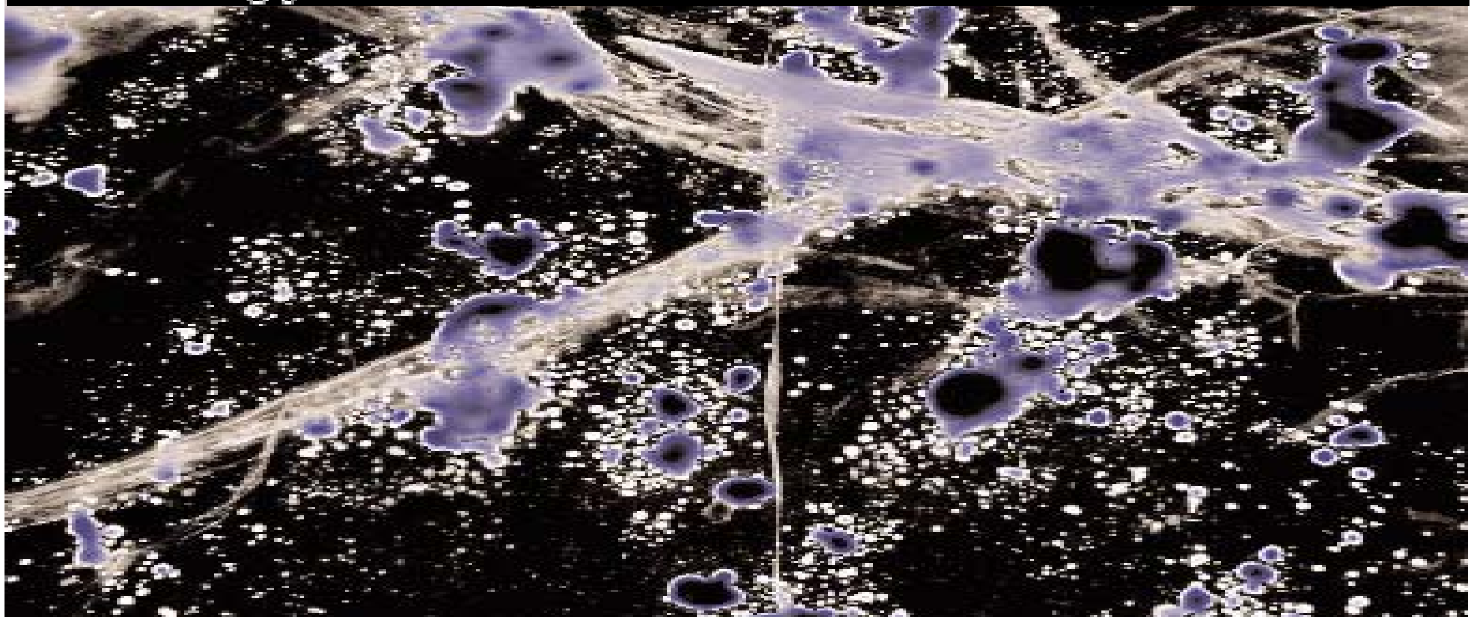


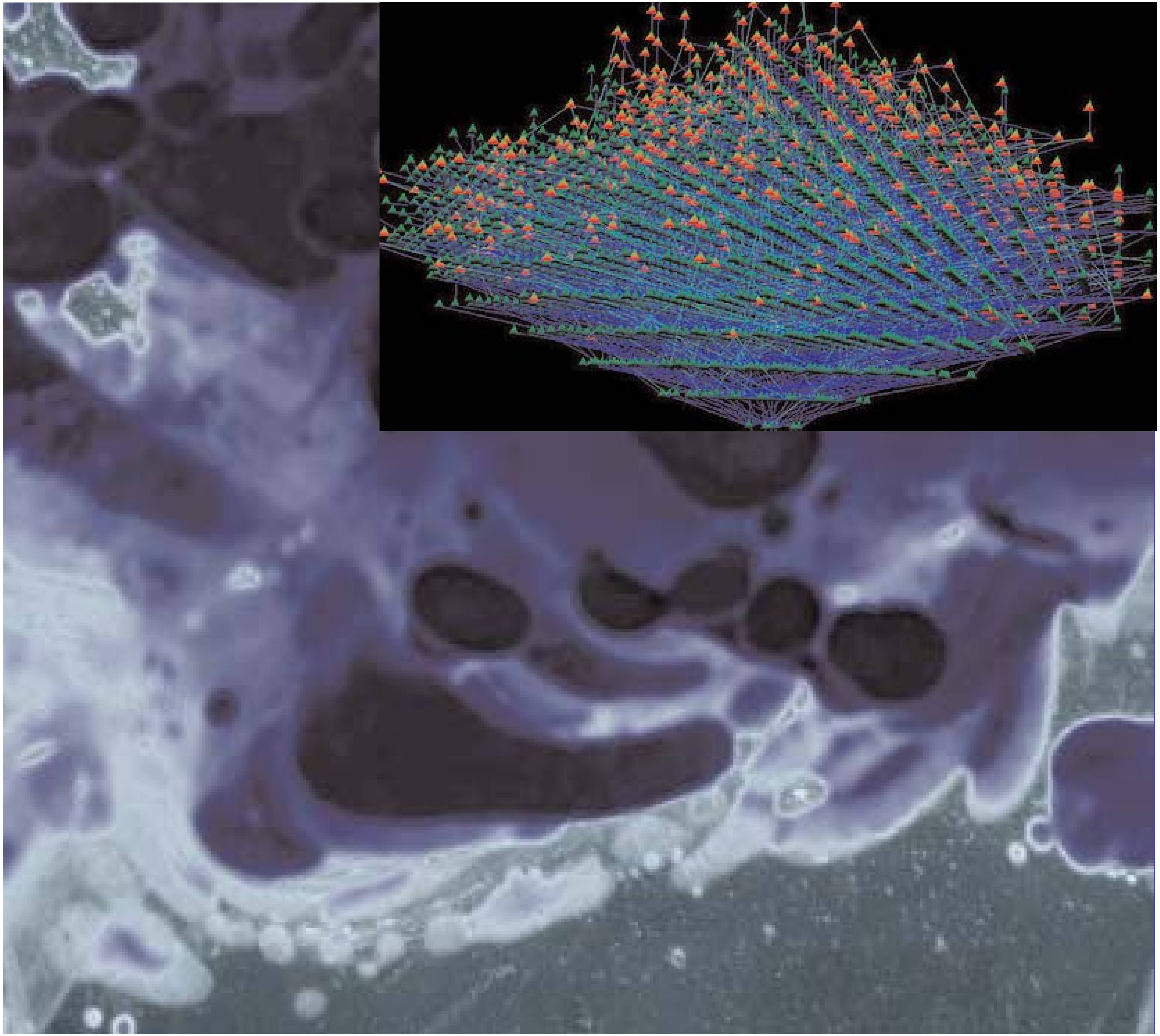
dark energy **énergie sombre**




e^- $\Longleftrightarrow$ e^+
électron positron
p $\Longleftrightarrow$ $\bar{p}$
proton antiproton
γ $\Longleftrightarrow$ γ
photon photon

$$-\hbar^2 \frac{\partial^2\Psi(\vec{r},t)}{\partial t^2} = -\hbar^2 c^2 \Delta \Psi(\vec{r},t) + m^2 c^4 \Psi(\vec{r},t)$$





$$\lambda_{max} = \frac{hc}{4,965 \cdot kT} = \frac{2,898 \cdot 10^{-3}}{T}$$

$$\Delta\varphi = \varphi_{exp} - \varphi_{RG} = \Delta\varphi_{Newton} - \varphi_{Einstein} \simeq 0.08 \pm 0.45$$

$$\vec{F}_{12} = -G\frac{m_1 m_2}{d^2}\vec{u}_{12}$$

$$\lambda = \frac{h}{p}$$

$$\varphi = \varphi_{exp} - \varphi_{RG} = \Delta\varphi_{Newton} - \varphi_{Einstein} \simeq 0.08 \pm 0.45$$

$$H = \sum_k a_k^\dagger a_k$$

$$\varphi_{Einstein} = \frac{6\,\pi\,G\,M_S}{c^2\,a\,(1-e^2)} \quad \frac{24\,\pi^3\,a^2}{T^2\,c^2\,(1-e^2)}$$

g(0)=a ; g(n+1)=f(g(n))y=g(x) ? ! [â(l,0)=a ? ? i < x â(l, i+1)=f(â(l, i)) ? y = â(l, x)]

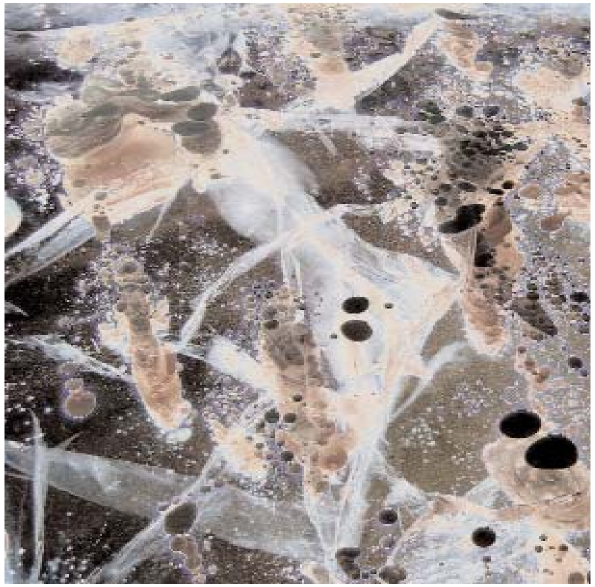
g(0)=a ; g(n+1)=f(g(n))y=g(x) ? ! [â(l,0)=a ? ? i < x â(l, i+1)=f(â(l,

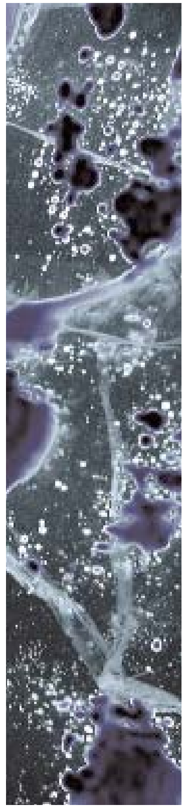
$$R_{\mu\nu} - \frac{1}{2} g_{\mu\nu} R - \Lambda\, g_{\mu\nu} = \frac{8\pi G}{c^4}$$

?x A ? ?x B ? ?x (A ? B) ; ?x ?y A(x, y) ?N ?z ?x?z ?y?z A(x, y) ; ?x A

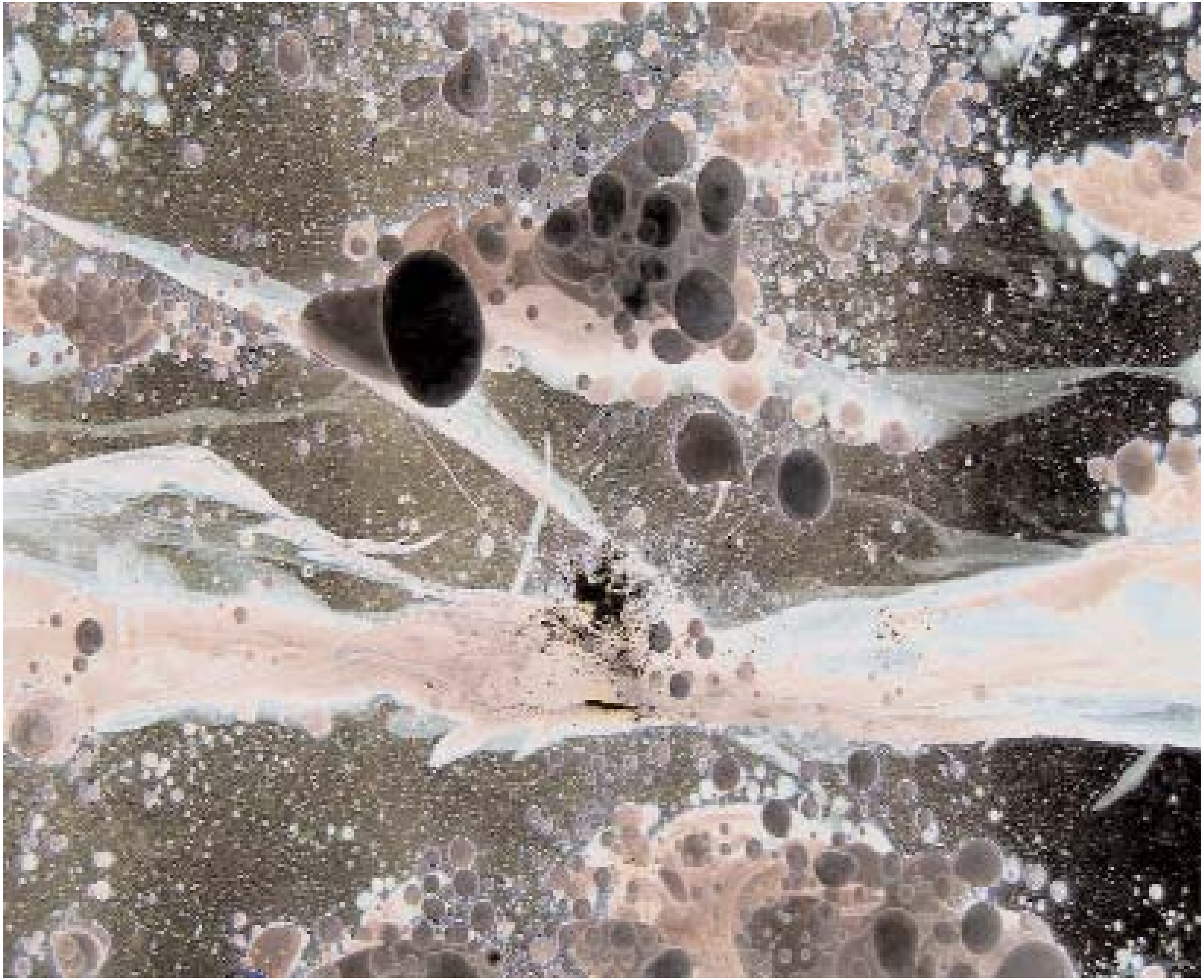
? ?y B ? ?x ?y (A ? B) ; ?x?z ?y A(x, y) ?N? u ?x?z ?y?u A(x, y).

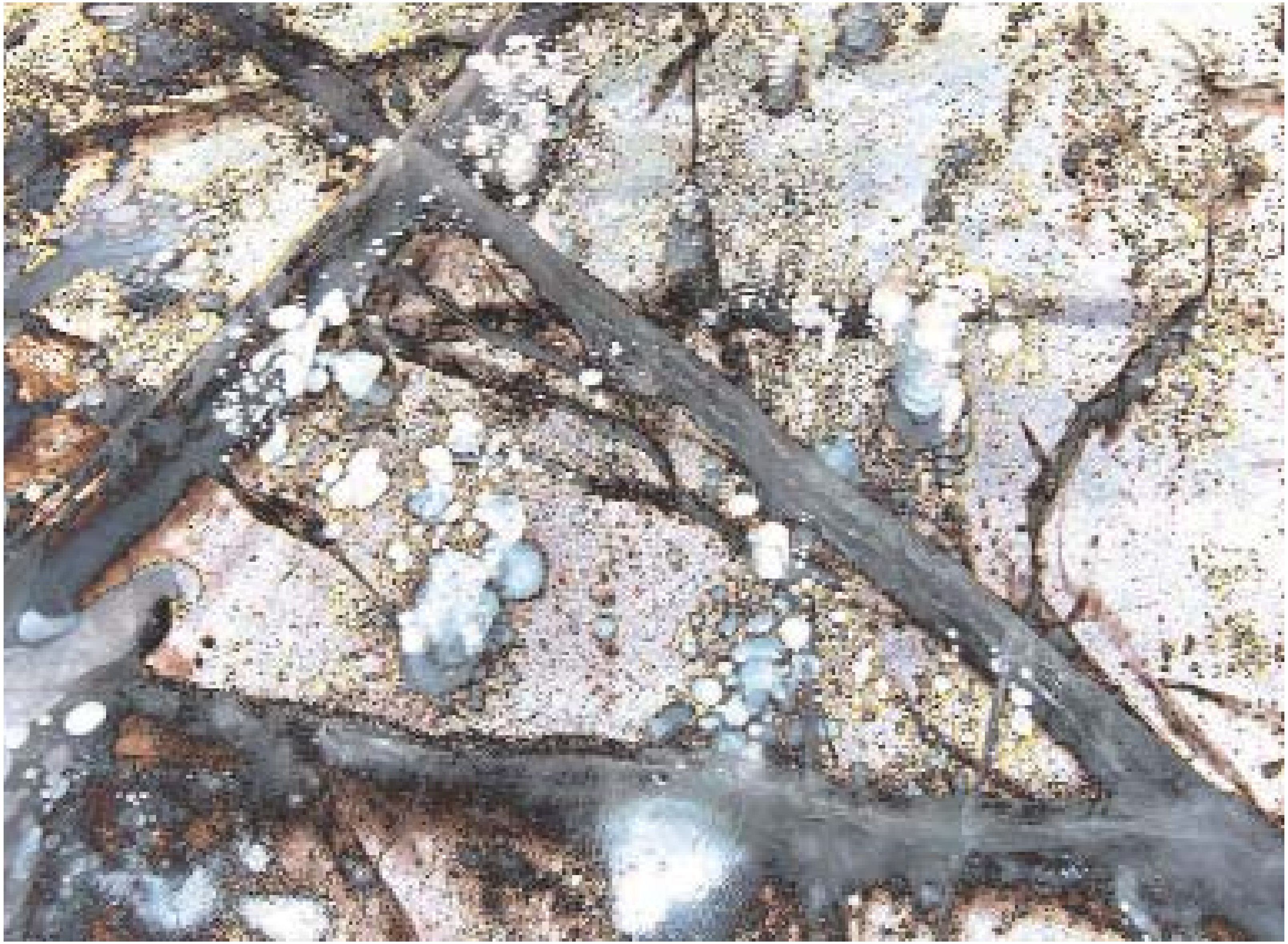
g(0)=a ; g(n+1)=f(g(n))y=g(x) ? ! [â(l,0)=a ? ? i < x â(l, i+1)=f(â(l, i)) ? y = â(l, x)]

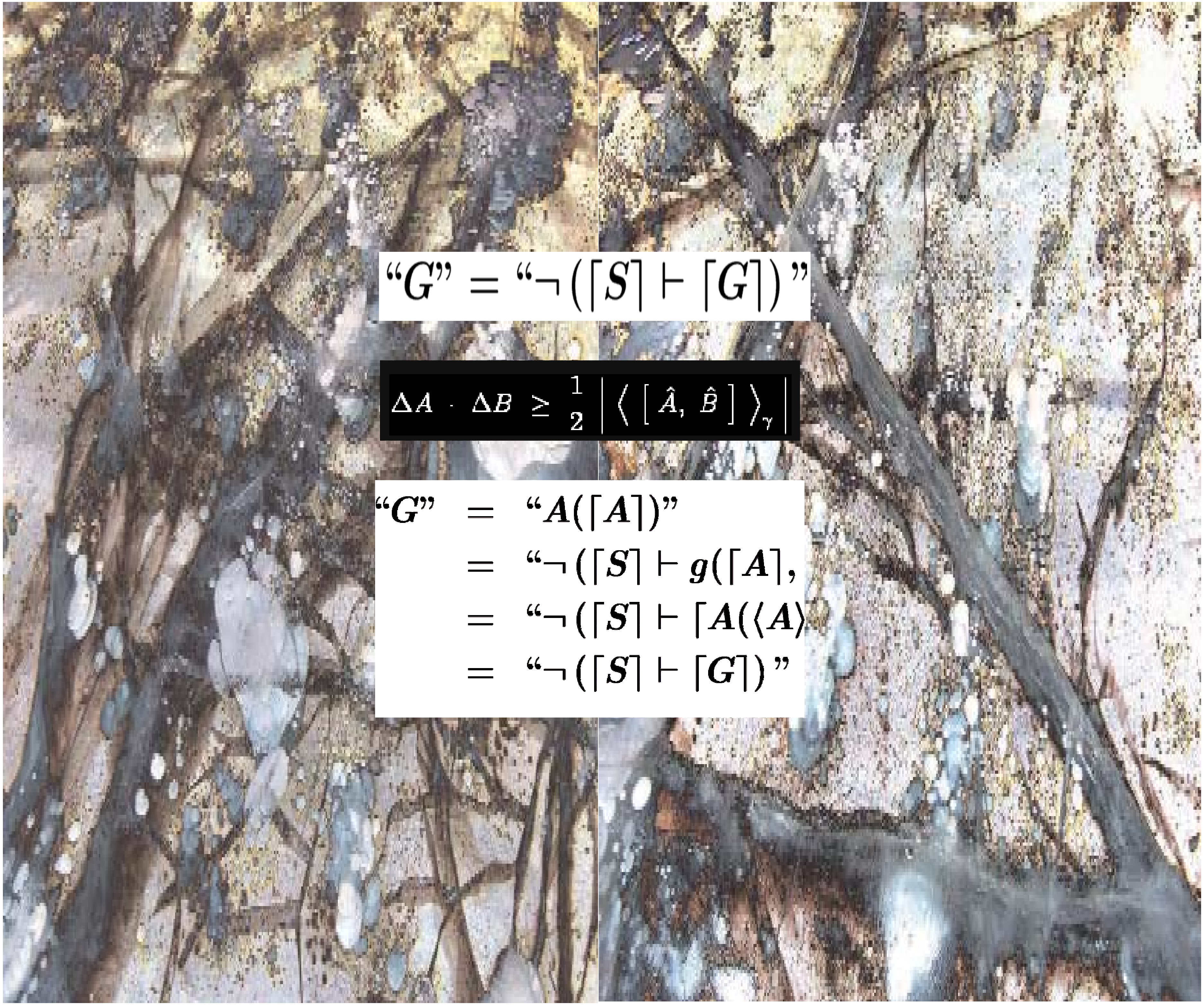




$$\Phi = \sigma T^4$$







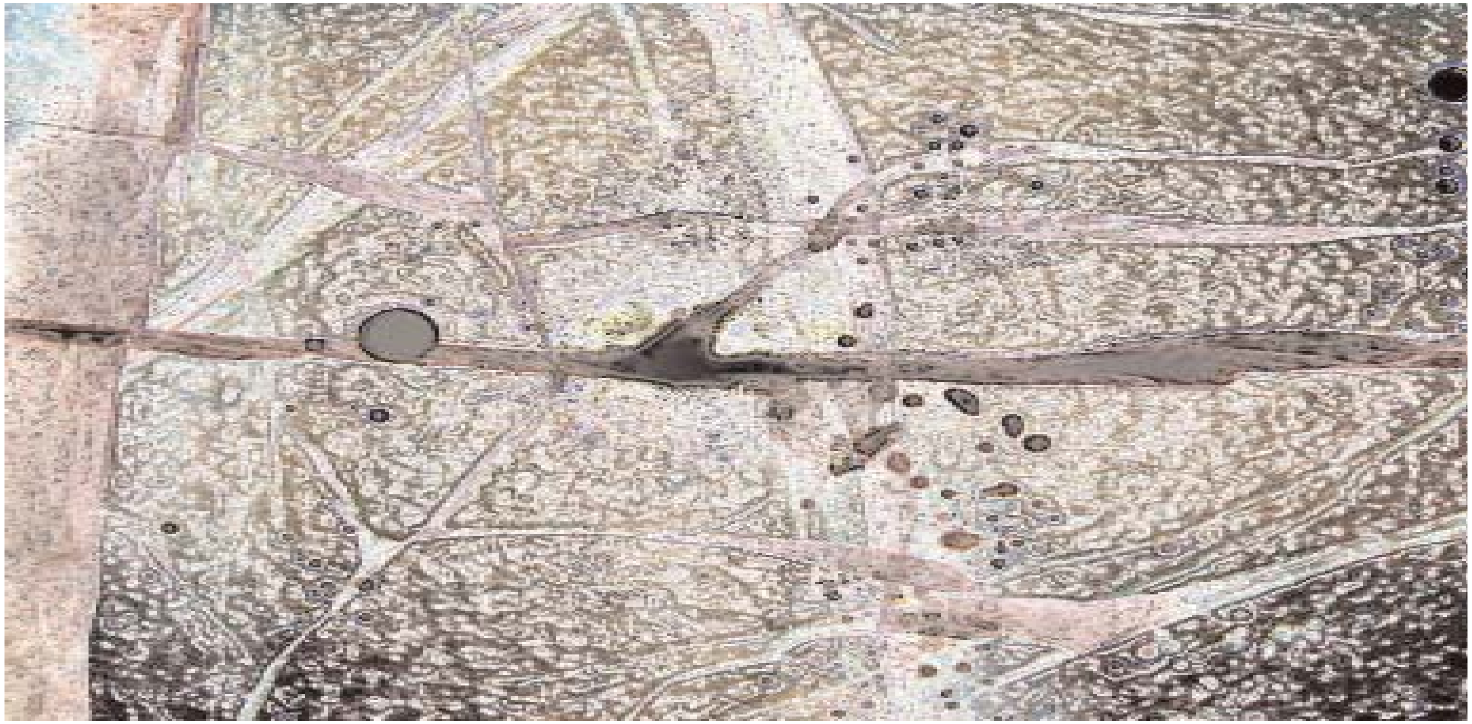
$$“G” = “\neg\left(\lceil S\rceil \vdash \lceil G\rceil\right)”$$

$$\Delta A \cdot \Delta B \geq \frac{1}{2}\left|\left\langle \left[\hat{A}, \hat{B}\right] \right\rangle_{\gamma}\right|$$

$$\begin{aligned} “G” &= “A(\lceil A\rceil)” \\ &= “\neg\left(\lceil S\rceil \vdash g(\lceil A\rceil,\right. \\ &= “\neg\left(\lceil S\rceil \vdash \lceil A(\langle A\rangle\right. \\ &= “\neg\left(\lceil S\rceil \vdash \lceil G\rceil\right)” \end{aligned}$$

$$\hbar^2 \frac{\partial^2\Psi(\vec{r},t)}{\partial t^2} = -\hbar^2 c^2 \Delta \Psi(\vec{r},t) + m^2 c^4 \Psi(\vec{r},t)$$

$$\langle\phi|\psi\rangle = \left(\begin{pmatrix}\phi_1\\ \phi_2\\ \vdots\\ \phi_N\end{pmatrix}_{\epsilon^*}, \begin{pmatrix}\psi_1\\ \psi_2\\ \vdots\\ \psi_N\end{pmatrix}_{\epsilon}\right) = \begin{bmatrix}\phi_1 & \phi_2 & \cdots & \phi_N\end{bmatrix} \cdot \begin{bmatrix}\psi_1\\ \psi_2\\ \vdots\\ \psi_N\end{bmatrix} = \sum_{n=1}^{N} \phi_n \cdot \psi_n$$



$$|\psi\rangle = \begin{pmatrix}\psi_1\\ \psi_2\\ \vdots\\ \psi_N\end{pmatrix}_{\epsilon} = \begin{bmatrix}\psi_1\\ \psi_2\\ \vdots\\ \psi_N\end{bmatrix} \cdot \begin{bmatrix}|u_1\rangle & |u_2\rangle & \cdots & |u_N\rangle\end{bmatrix}$$

$$\langle\phi| = \begin{pmatrix}\phi_1\\ \phi_2\\ \vdots\\ \phi_N\end{pmatrix}_{\epsilon^*} = \begin{bmatrix}\phi_1 & \phi_2 & \cdots & \phi_N\end{bmatrix} \cdot \begin{bmatrix}\langle u_1|\\ \langle u_2|\\ \vdots\\ \langle u_N|\end{bmatrix}$$

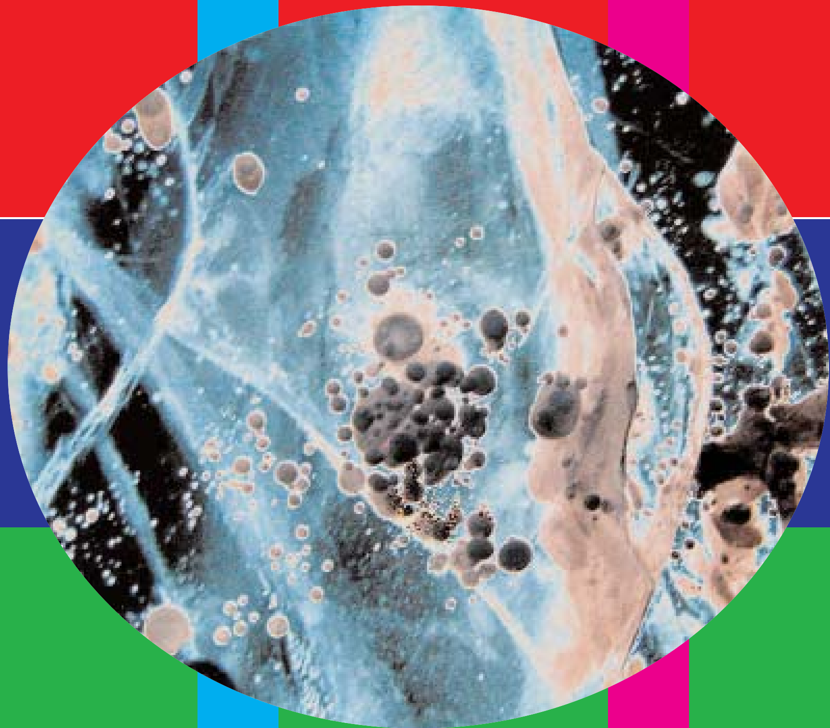
$$R_{\mu\nu} - \frac{1}{2} g_{\mu\nu} R - \Lambda g_{\mu\nu} = \frac{8\pi G}{c^4} T_{\mu\nu}$$

p + n - D + γ (γ
D + n - ^{3}H + γ
D + p - ^{3}He + γ
D + D - ^{3}H + p

^{3}He + n - ^{4}He + γ
^{3}H + D - ^{4}He + n
^{3}He + D - ^{4}He + p
^{3}He + ^{3}He - ^{4}He + 2p

^{6}Li + p - ^{7}Be + γ
^{7}Li + p - ^{4}He + γ
^{7}Be + n - ^{7}Li + p
^{7}Be + e$^-$ - ^{7}Li + γ

$$\frac{n_p}{n_n} = e^{-\frac{E_p - E_n}{kT}} = e^{-\frac{\Delta mc^2}{kT}}$$

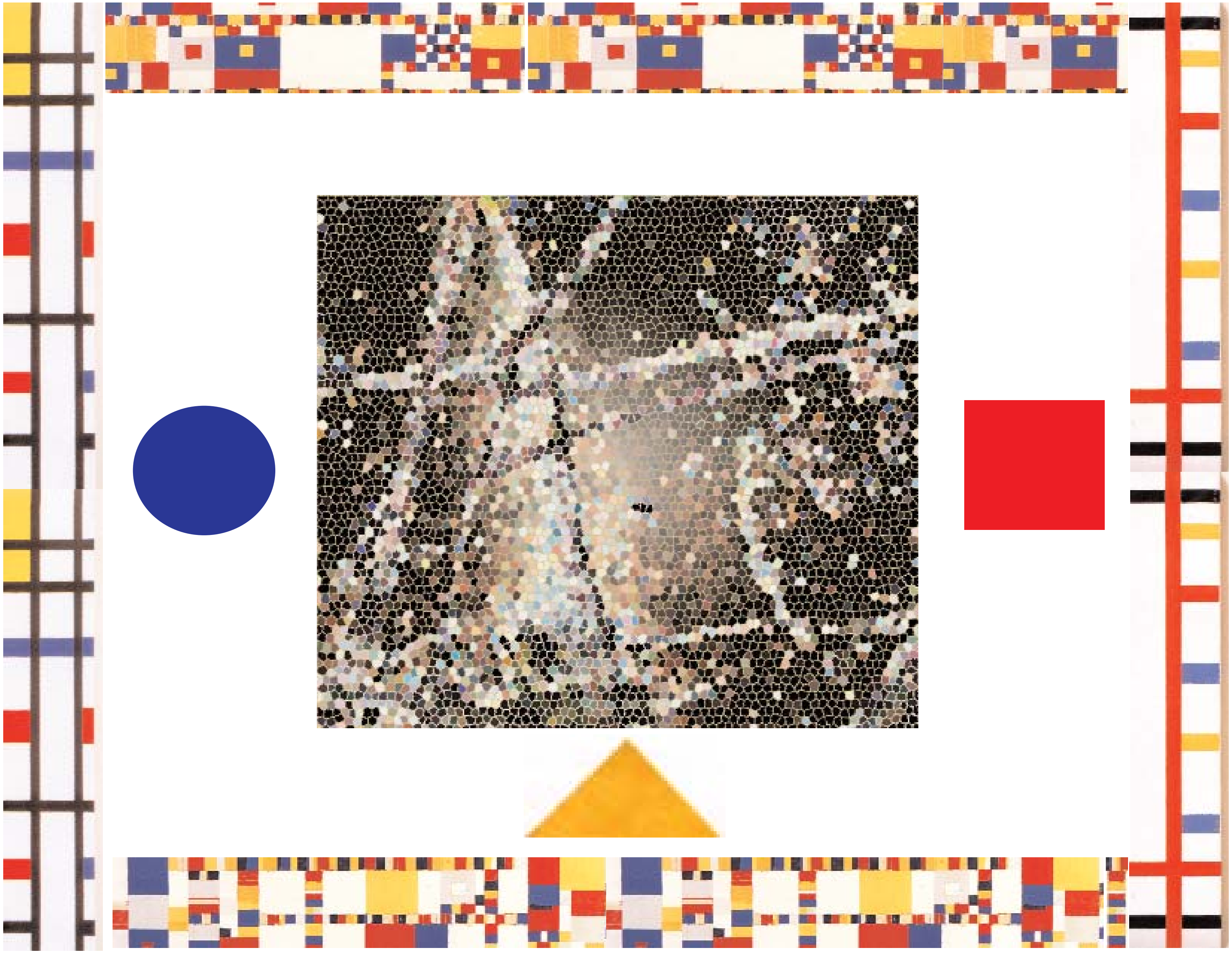


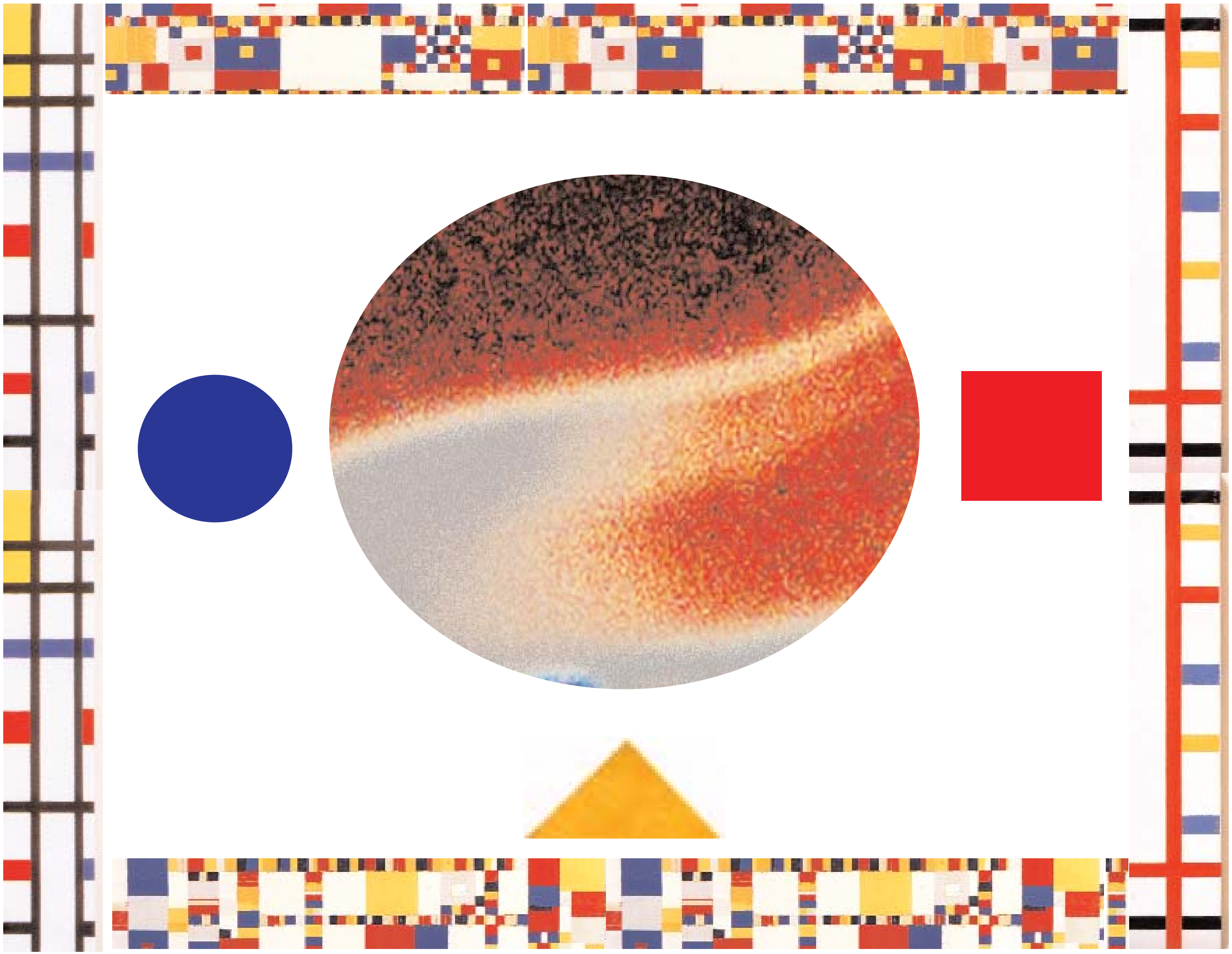
D + D - ^{3}He + n
D + D - ^{4}He + γ
^{3}H + p - ^{4}He + γ
^{3}He + n - ^{3}H + p

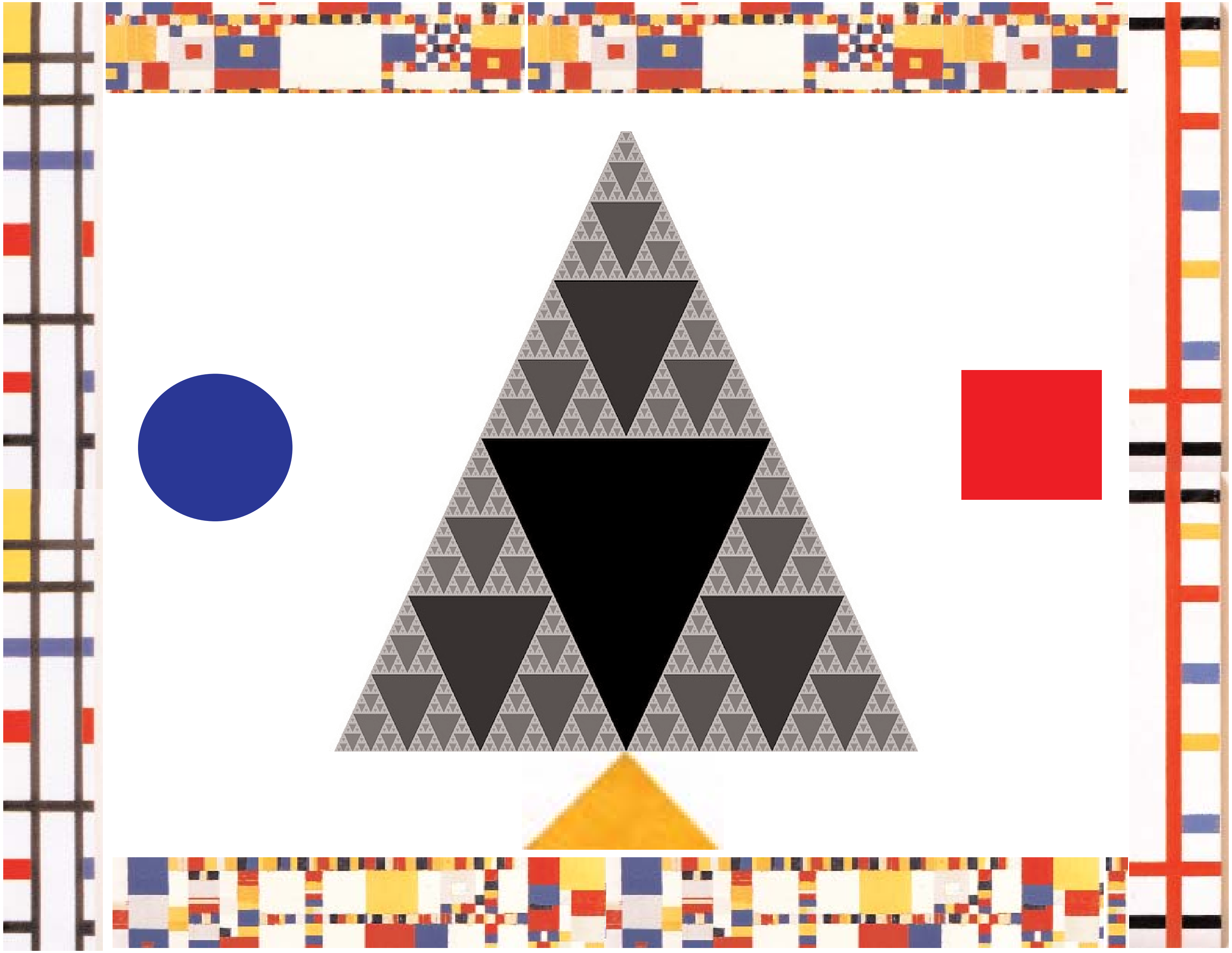
^{4}He + D - ^{6}Li + γ
^{4}He + ^{3}H - ^{7}Li + γ
^{4}He + ^{3}He - ^{7}Be + γ
^{6}Li + n - ^{7}Li + γ

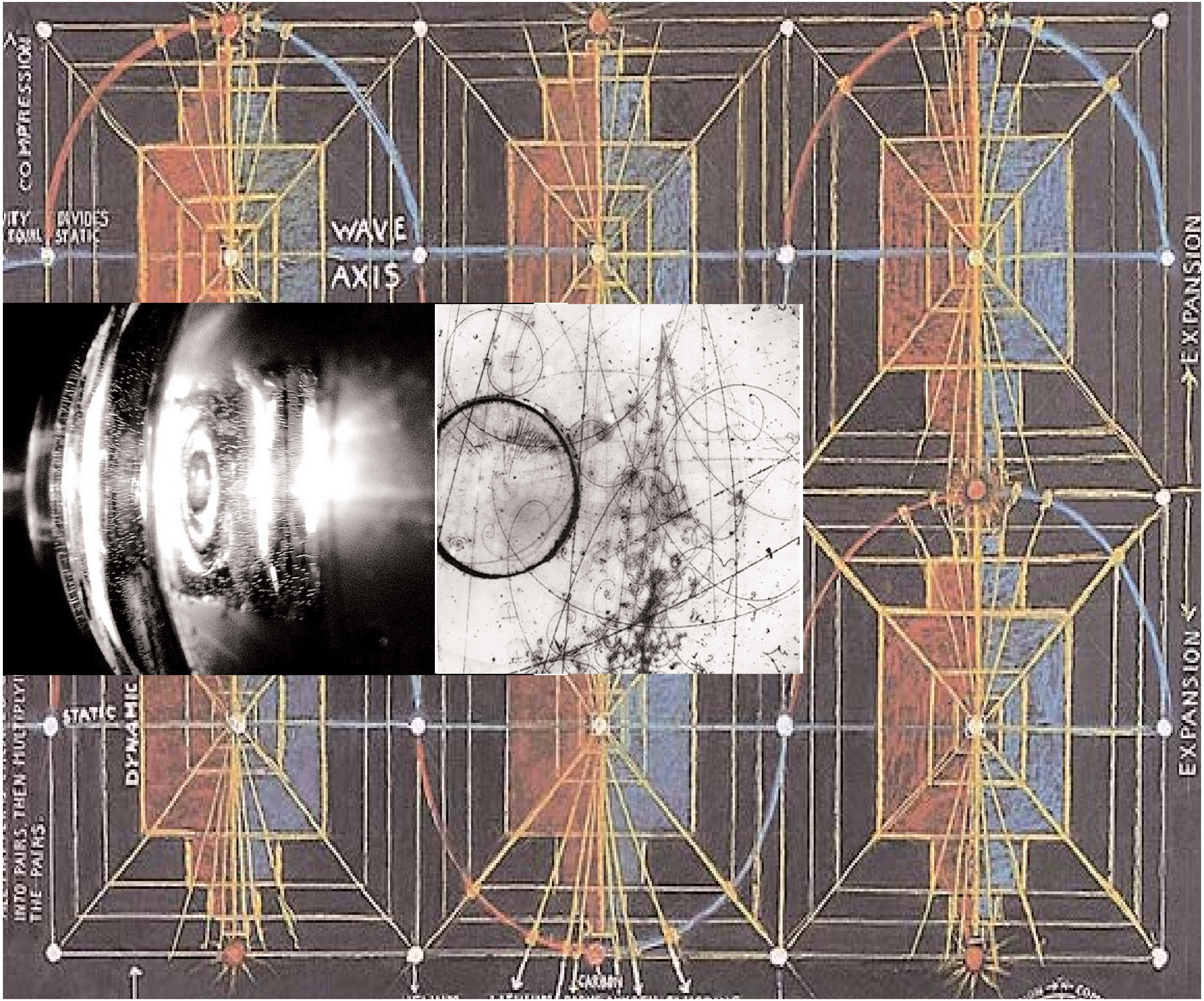
$$n + \nu_e \longleftrightarrow p + e^-$$
$$n + e^+ \longleftrightarrow p + \nu_e$$
$$n \longleftrightarrow p + e^- + \overline{\nu_e}$$

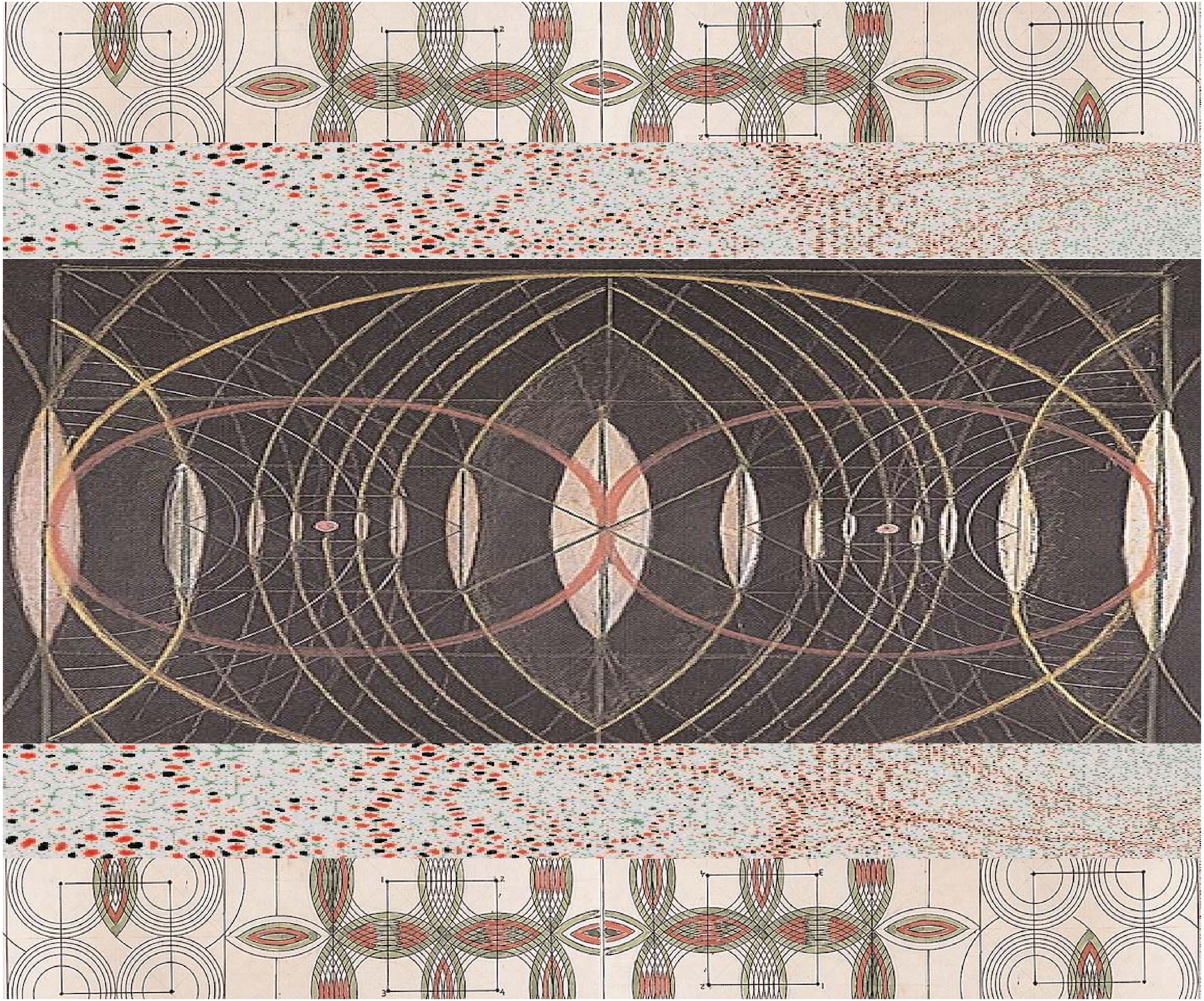
$$B_\lambda(T) = \frac{8\pi hc}{\lambda^5(e^{\frac{hc}{\lambda kT}} - 1)}$$

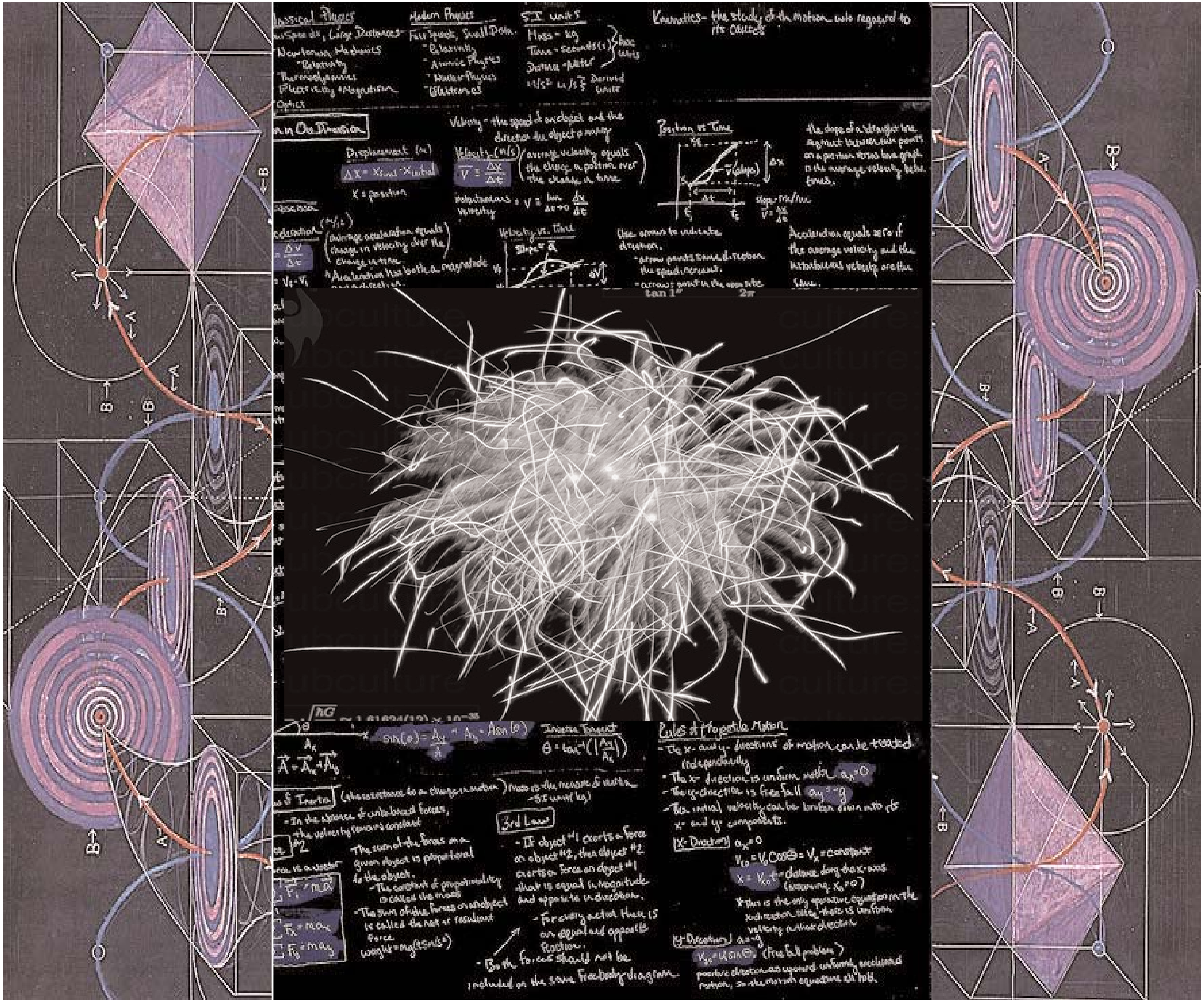




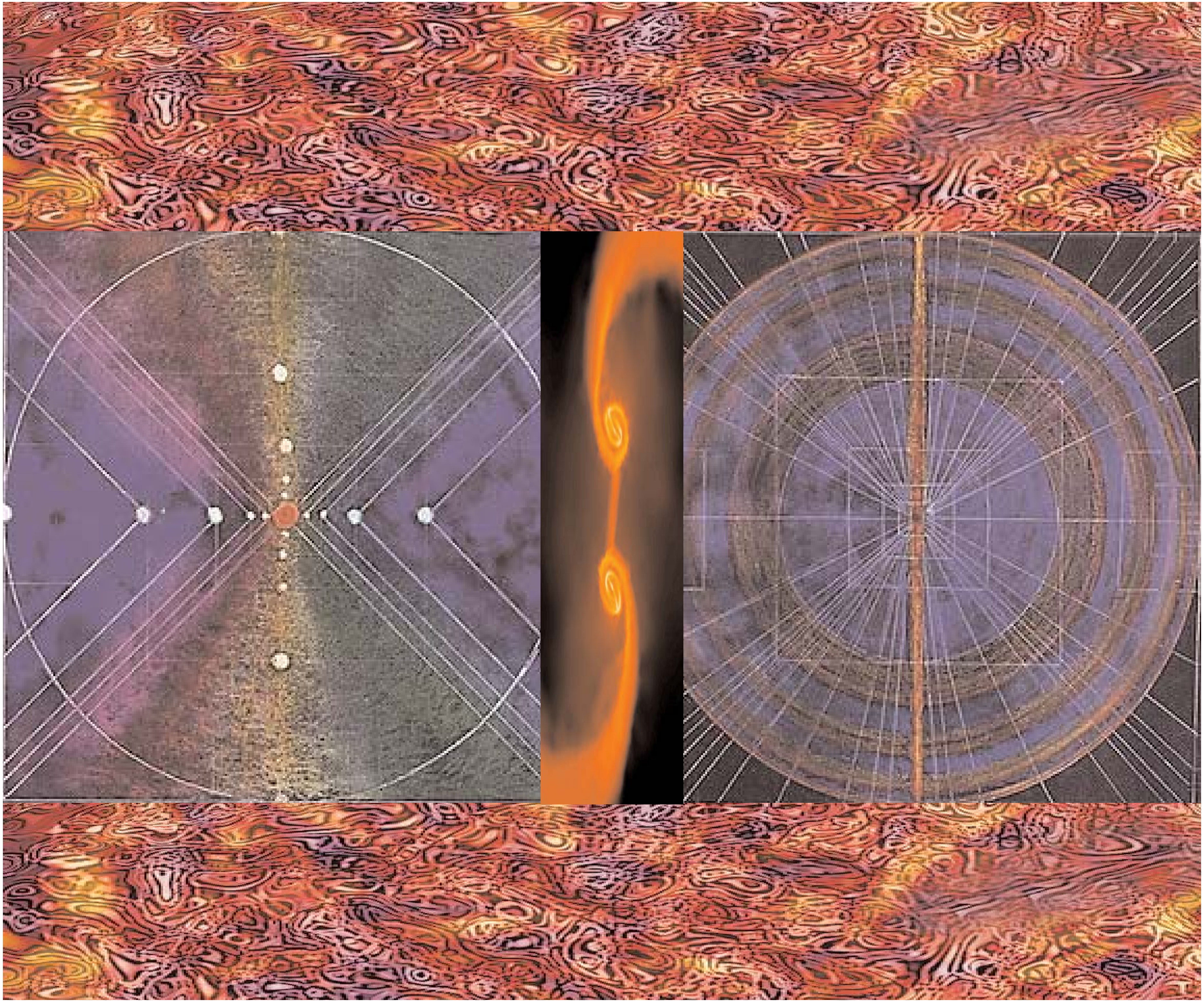


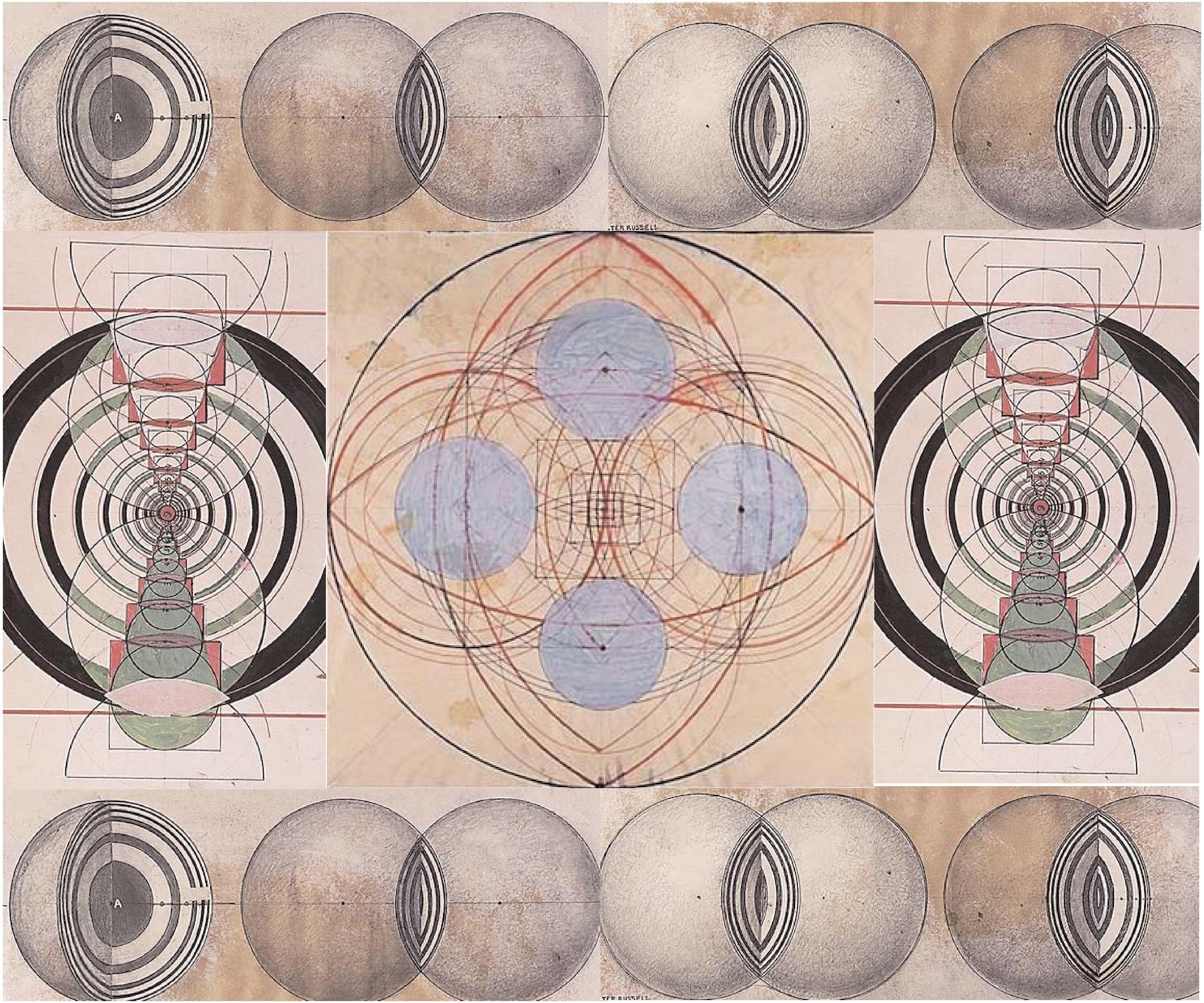

COMPRESSION
WAVE
AXIS
EXPANSION
STATIC
DYNAMIC
INTO PAIRS, THEN MULTIPLY
THE PAIRS.
EXPANSION
CARBON

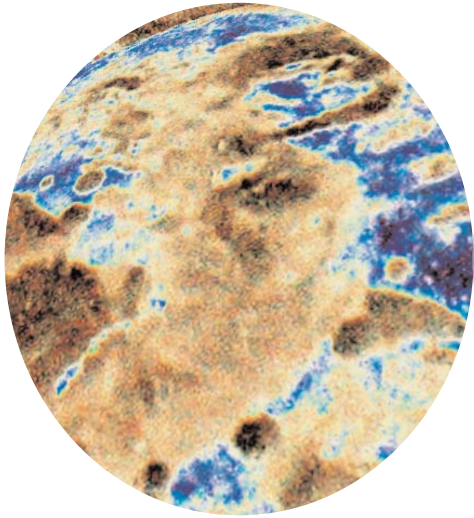
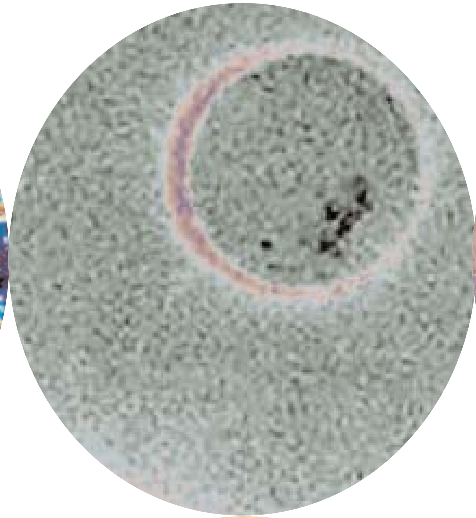
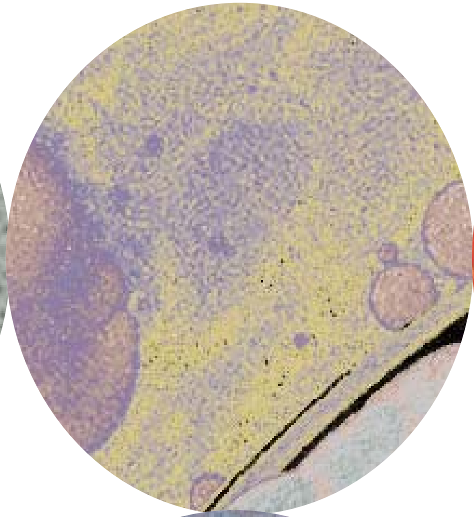
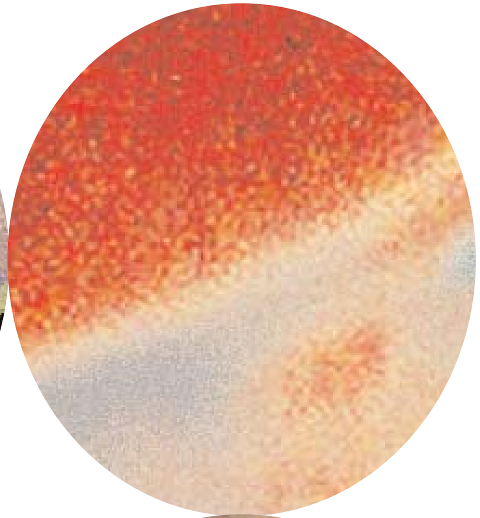
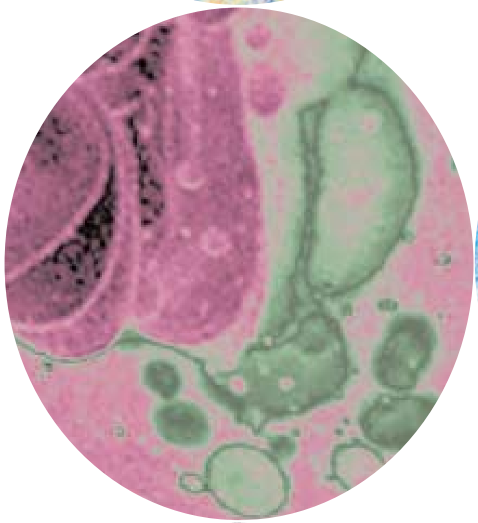
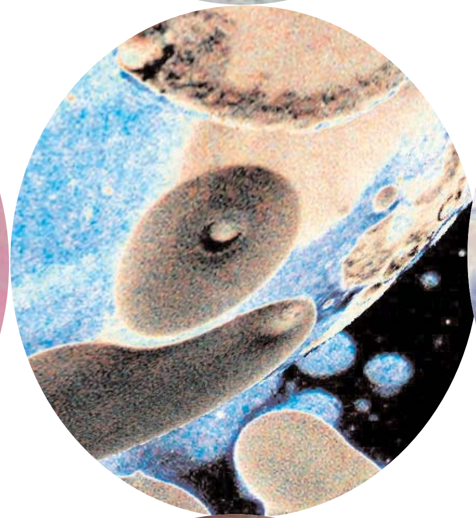


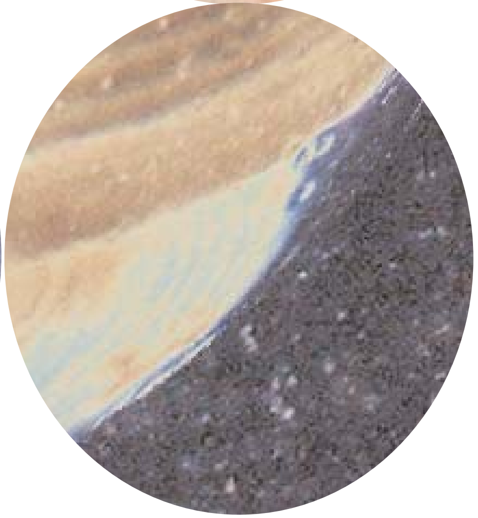
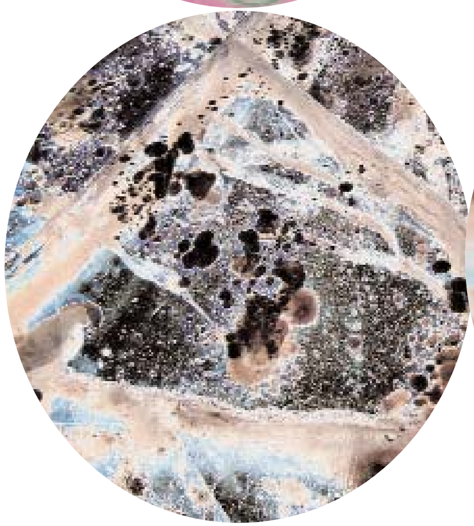


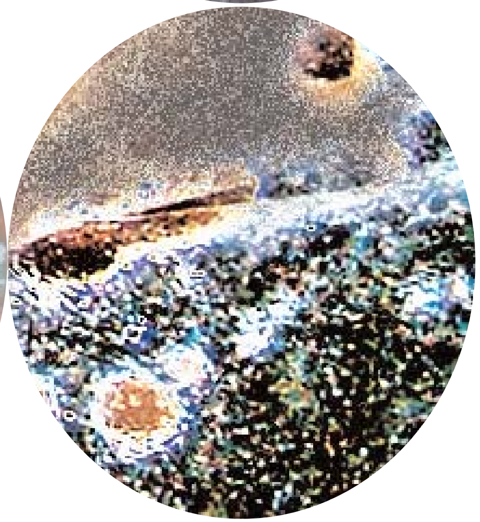
Classical Physics
Modern Physics
S.I. units
Kinematics - the study of the motion w/o regard to its causes
Position vs Time
Velocity vs. Time
Inverse Tangent
Rules of Projectile Motion
3rd Law





$$\mathrm{Trace}(\hat{A}\hat{B}) = \mathrm{Trace}(\hat{B}\hat{A}) \Longrightarrow$$

$$\left[\hat{L}_i,\ \hat{L}_j\right] = i\,\hbar\,\epsilon_{ijk}\,\hat{L}_k$$

$$\hat{\mathbf{L}}(\mathbf{r}) = \hat{\mathbf{Q}} \times \hat{\mathbf{P}} = -i\hbar\mathbf{r} \times$$

$$= |\langle\beta|\alpha,t\rangle|^2 = \left|\sum w_j|\alpha_j,t\rangle\right.$$

$$\sqrt{E/m} = \sqrt{\frac{0.8186\cdot 10^{-13}}{9.1083\cdot 10^{-31}}} =$$

$$\varphi_{RG} = \varphi_{Einstein} + \varphi_{Newton}$$

$$= i\hbar\frac{d}{dt}|\psi(t)\rangle = \frac{\mathbf{p}^2}{2m}|\psi(t)\rangle -$$

$$|\psi(t)\rangle = \sum_n\sum_i c_{n,i}|\varphi_{n,i}\rangle > \epsilon$$

f(q,p)mmmm99.[-i.W(f),-i.W(g)] := -i.W({f,g}).{f,g} q^2p^2 /6(Q^2P^2 + QPQP + QP^2Q + PQ^2P + PQPQ + P^2Q^2).[W(q^3),W(p^3] et {x^3,p^3}=3q^2.3p^2-0.QP = PQ +i :9 W(q^2p^2) = 9/6 (Q^2P^2 + QPQP + QP^2Q + PQ^2P + PQPQ + P^2Q^2)= 3 (3P^2Q^2 +6iPQ -3/2).f(q,p).[-i.W(f),-i.W(g),,ni.W({f,g}).{f,g} q^2p^2 /6(Q^2P^2 + QPQP + QP^2Q + PQ^2P + PQPQ + P^2Q^2).[W(q^3),W(p^3] et {x^3,p^3}=3q^2.3p^2-0.QP = PQ +i :9 W(q^2p^2) = 9/6 (Q^2P^2 + QPQP + QP^2Q + PQ^2P + PQPQ + P^2Q^2)= 3 (3P^2Q^2 +6iPQ -3/2).f(q,p).[-i.W(f),-i.W(g)] := -i.W({f,g}).{f,g} q^2p^2 /6(Q^2P^2 + QPQP + QP^2Q + PQ^2P + PQPQ + P^2Q^2).[W(q^3),W(p^3] et {x^3,p^3}=3q^2.3p^2-0.QP = PQ +i :9 W(q^2p^2) = 9/6 (Q^2P^2 + QPQP + QP^2Q + PQ^2P + PQPQ + P^2Q^2)= 3 (3P^2Q^2 +6iPQ -3/2).f(q,p).[-i.W(f),-i.W(g)] := -i.W({f,g}).{f,g} q^2p^2 /6(Q^2P^2 + QPQP + QP^2Q + PQ^2P + PQPQ + P^2Q^2).[W(q^3),W(p^3] et {x^3,p^3}=3q^2.3p^2-0.QP = PQ +i :9 W(q^2p^2) = 9/6 (Q^2P^2 + QPQP + QP^2Q + PQ^2P + PQPQ + P^2Q^2)= 3 (3P^2Q^2 +6iPQ -3/2).W(q^2p^2) = 9/6 (Q^2P^2 + QPQP + QP^2Q + PQ^2P + PQPQ + P^2Q^2)= 3 (3P^2Q^2 +6iPQ8z8-9#566q^2p^2) = 9/6 (Q^2P^2 + QPQP +.[W(q^3),W(p^3] et {x^3,p^3}=3q^2.3p^2-0.QP = PQ +i :9 W(q^2p^2) = 9/6 (Q^2P^2 + QPQP + QP^2Q + PQ^2P + PQPQ + P^2Q^2)= 3 (3P^2Q^2 +6iPQ -3/2).Or [Q^3, P^3]= 9 P^2Q^2 +18 i PQ -6 d 6iPQ -3/2).f(q,p).[-55t W(p^3] et {x^3,p^3}=3q^2.3p^2-0.QP = PQ +i :9 W(q^2p^2) = 9/6 (Q^2P^2 + QPQP + QP^2Q + PQ^2P + 9UUYT +i :9 W(q^2p^2) = 9/6 (Q^2P^2 + QPQP + QP^2Q + PQ^2P + PQPQ + P^2Q^2)= 3 (3P^2Q^2 +6iPQ -3/2).W(q^2p^2) = 9/6 (Q^2P^2 + QPQP + QP^2Q + PQ^2P + PQPQ + P^2Q^2)= Or [Q^3, P^3]= 9 P^2Q^2 +18 i PQ -6 d =(V+v) t = Vt +vt 1/299.792.458 3P^2Q^2 +6iPQ -3/2).3P^2Q^2 +6iPQ -3/2).3P^2Q^2 +6iPQ -3/2).q^3),W(p^3] et {x^3,p^3}=3q^2.3p^2-0.QP = PQ +i :9 W(q^2p^2) = 9/6 (Q^2P^2 + QPQP + QP^2Q + PQ^2P + PQPQ + P^2Q^2)= 3 (3P^2Q^2 +6iPQ -88iPQ -3/2).3P^2Q^2 +6iPQ -3/2).3P^2Q^2 +6iPQ -3/2).q^3),W(p^3] et {x^3,p^3}=3q^2.3p^2-0.QP = PQ +i :9 W(q^2p^2) = 9/6.[W(q^3),W(p^3] et {x^3,p^3}=3q^2.3p^2-0.QP = PQ +i :9 W(q^2p^2) = 9/6 (Q^2P^2 + QPQP + QP^2Q + PQ^2P + PQPQ + P^2Q^2)= 3 (3P^2Q^2 +6iPQ -3/2).Or

i.W(f),-i.W(g)] := -i.W({f,g}).{f,g} q^2p^2 /6(Q^2P^2 + QPQP + QP^2Q + PQ^2P + PQPQ +^3] et {x^3,p^3}=3q^2.3p^2-0.QP = PQ +i :9 W(q^2p^2) = 9/6 (Q^2P^2 + QPQP + QP^2Q + PQ^2P + RPQi.W({f,g}).{f,g} q^2p^2 /6(Q^2P^2 + QPQP + 458 P^2Q^2).[W(q^3),W(p^3] et {x^3,p^3}=3q^2.3p^2-0.QP = PQ +i :9 W(q^2p^2) = 9/6 (Q^2P^2 + QPQP + QP^2Q + PQ^2P + PQPQ + P^2Q^2)= 3 (3P^2Q^2 +6iPQ -3/2).f(q,p).[-i.W(f),-i.W(g)] := -i.W({f,g}).{f,g} q^2p^2 /6(Q^2P^2 + QPQP + QP^2Q + PQ^2P + PQPQ + P^2Q^2).[W(q^3),W(p^3] et {x^3,p^3}=3q^2.3p^2-0.QP = PQ +i :9 W(q^2p^2) = 9/6 (Q^2P^2 + QPQP + QP^2Q + PQ^2P + PQPQ + P^2Q^2)= 3 (3P^2Q^2 +6iPQ -3/2).f(q,p).[-i.W(f),-i.W(g)] := -i.W({f,g}).{f,g} q^2p^2 /6(Q^2P^2 + QPQP + QP^2Q + PQ^2P + PQPQ + P^2Q^2).[W(q^3),W(p^3] et {x^3,p^3}=3q^2.3p^2-0.QP = PQ +i :9 W(q^2p^2) = 9/6 (Q^2P^2 + QPQP + QP^2Q + PQ^2P + PQPQ + P^2Q^2)= 3 (3P^2Q^2 +6iPQ -3/2).W(q^2p^2) = 9/6 (Q^2P^2 + QPQP + QP^2Q + PQ^2P + PQPQ + P^2Q^2)= 3 (3P^2Q^2 +6iPQ8z8-9#566PQPQ + P^2Q^2).[W(q^3),W(p^3] et {x^3,p^3}=3q^2.3p^2-0.QP = PQ +i :9 W(q^2p^2) = 9/6 (Q^2P^2 + QPQP + QP^2Q 6ttr38zz9000f(q,p).[-i.W(f),-i.W(g)] := -i.W({f,g}).{f,g} q^2p^2 /6(Q^2P^2 + QPQP + QP^2Q + PQ^2P + PQPQ + P^2Q^2).[W(q^3),W(p^3] et UTT66+ QP^2Q + PQ^2P + PQPQ + P^2Q^2).[W(q^3),W(p^3] et {x^3,p^3}=3q^2.3p^2-0.QP = PQx^3,p^3}=3q^2.3p^2-0.QP = PQ +-i.W({f,g}).{f,g} q^2p^2 /6(Q^2P^2 + Or [Q^3, P^3]= 9 P^2Q^2 +18 i PQ -6 d =(V+v) t = Vt +vt 1/299.792.458 3P^2Q^2 +6iPQ -3/2).3P^2Q^2 +6iPQ -3/2).3P^2Q^2 +6iPQ -3/2).q^3),W(p^3] et {x^3,p^3}=3q^2.3p^2-0.QP = PQ +i :9 W(q^2p^2) = 9/6 (Q^2P^2 + QPQP + QP^2Q + PQ^2P + PQPQ + P^2Q^2)= 3 (3P^2Q^2 +6iPQ -88 PQ +i :9 W(q^2p^2) = 9/6 (Q^2P^2 + QPQP + QP^2Q + PQ^2P + PQPQ + P^2Q^2)= 3 (3P^2Q^2 +6iPQ -3/2).3P^2Q^2 +6iPQ -3/2).f(q,p).[-i.W(f),-i.W(g)] := -i.W({f,g}).{f,g} q^2p^2 /6(Q^2P^2 + QPQP + QP^2Q + PQ^2P + PQPQ + P^2Q^2).[W(q^3),W(p^3] et {x^3,p^3}=3q^2.3p^2-0.QP = PQ +i :9 W(q^2p^2) = 9/6 (Q^2P^2 + QPQP + QP^2Q0005577890 +6iPQ -3/2).Or [Q^3, P^3]= 9 P^2Q^2 +18 i PQ -6 d =(V+v) t = Vt +vt 1/299.792.458 [W(q^3),W(p^3] et {x^3,p^3}=3q^2.3p^2-0.QP = PQ +i :9 W(q^2p^2) = 9/6 (Q^2P^2 +f(q,p).[-i.W(f),-i.W(g)] := -i.W({f,g}).{f,g}

$$\frac{\partial\Psi(\vec{r},t)}{\partial t^2} = -\hbar^2 c^2\,\Delta\,\Psi(\vec{r},t)$$

$$\frac{1}{\sqrt{6}}\left[\phi_1(r_1)\phi_2(r_2)\phi_2(r_3) + \right.$$

$$a_n|1\ 2\ 0\ 0\ \ldots\rangle = |1\ 1\ 0\ ($$

$$\Psi(x,t) = \Psi_n\,e^{-i\left(\frac{E}{\hbar}t-\frac{p_x}{\hbar}x\right)}$$

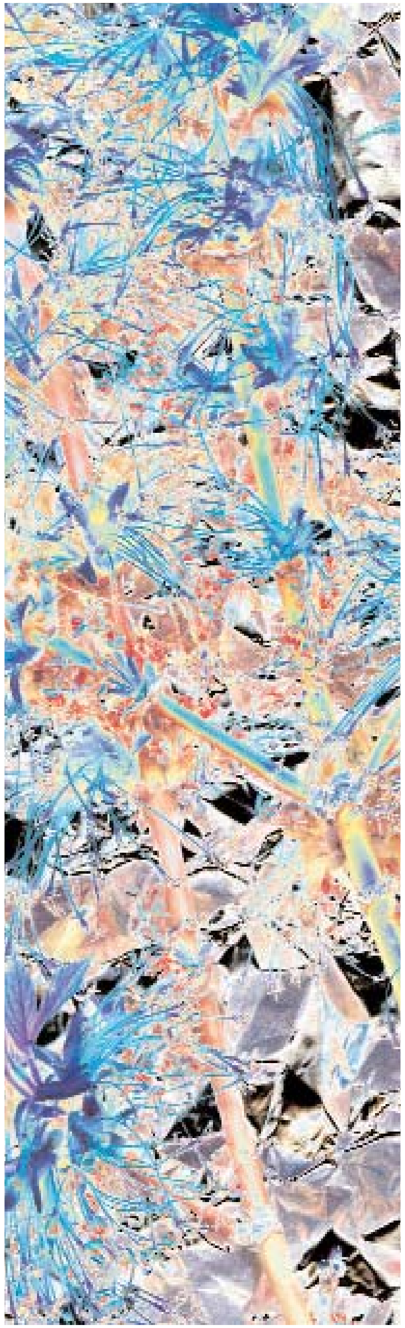
$$\hat{p}\ f(\vec{r}) = -\,i\,\hbar\,\frac{\partial f(\vec{r})}{}$$

$$E\ f(\vec{r},t) = -\,i\,\hbar\,\frac{\partial f(\vec{r},t)}{\partial t}$$

$$\Delta\,\Psi(\vec{r},t) + V(\vec{r})\,\Psi(\vec{r},t$$

$$\left[\hat{x}^i,\hat{p}_j\right]f(\vec{r}) = \left(\hat{x}^i\hat{p}_j - \hat{p}\right.$$

$$c_1 = 2\pi hc^2 = 3{,}741\ 8310\times 10^{-16}$$



LE CANTIQUE DU QUANTIQUE

éclatement baryonique, nébuleuse épectase
son inconnaissance vient de l'éclat aveuglant de son implosion
essence suressentielle, intelligence inintelligible, paradoxe ineffable

par diffusion, le chaos persuade
la matière informe de prendre des formes.
soleil sensible, corps intelligible
l'ontologie scalaire se manifeste

lux lumen fontana universi fiat lux
res naturæ subsistencia hypostasis
émanation de lumière substance diaphane
effluve d'entéléchie charge des couleurs

$$\iiint dP(\vec{r},t) \;=\; \iiint |\Psi(\vec{r},t)|^2 \; dV \;=\; 1$$

l'empyrée quantique élémentaire
méson baryon hadron
chromodynamique quantique rouge bleu vert
antiquark anti-charge antibleue antiverte antirouge

méson quark-antiquark
bleue -antibleue verte-antiverte rouge-antirouge
baryon trois antiquarks antibleu antivert antirouge
hadron blanc intrication neutre

positron électron matière antimatière
299.792.458 m.s-1